

SEPTEMBER, 1960



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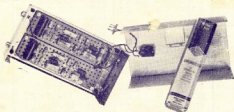
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EDITORIAL

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THE T.V. RECEIVER

NOW that both A.B.C. and Commercial t.v. stations are in operation in all Australian capital cities, the P.M.G.'s. Department is likely to receive many complaints of interference to reception. Many of these complaints, though a lot will be unfounded, will be laid at the door of the Amateur who is an established and well known member of most communities. It is due to the fact that a number of these complaints may emanate from other authorised communication and similar services, and not the Amateur, that the Institute has some cause for concern.

The Amateur Service, like the Broadcasting Service (to which the t.v. services belong), is an approved service along with many others, all of which are capable of causing interference to t.v. reception, especially if situated in bands in close proximity to t.v. channels. The proximity and closeness of such services is brought about by the increasing demands for more and more frequency space, and the need to make the greatest economical use of the frequency spectrum.

The aforementioned services, including the Amateur Service, are required by regulation to meet certain conditions and standards of operation, designed to achieve these economies. Are the manufacturers of t.v. receivers keeping up with progress and with better circuitry in the same way?

Due to the competitive nature of the t.v. receiver manufacturing industry, improvements have generally been made in the latest receivers resulting in cheaper sets. However, the r.f. and mixer stages, in which this interference is likely to give the most trouble, have changed very little and still leave a lot to be desired in selectivity and to some extent, shielding. If these two aspects of receiver design have not benefited in the way of improved circuitry, front-end blocking from adjacent transmitters can give a lot of trouble to the set owner. Once the novelty has worn off, the set owner becomes aware of imperfections in his received picture and will lodge a complaint if such trouble continues.

Surely it is not too much to ask that manufacturers of sets incorporate the most selective and shielded circuits possible in their products so that the set owners, the Amateur and the P.M.G.'s. Department obtain some relief. Alternatively, should the A.B.C.B., who regulate such matters, tighten up their requirements for t.v. receivers? The competitive market may result in a new sales gimmick—"Buy our super-duper shielded receiver and rid yourself of interference". This is one sales slogan, if true, the Amateur would welcome.

FEDERAL EXECUTIVE

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Using Silicon Rectifiers and T.V. Components in Amateur Power Supplies

S. T. CLARK,* VK3ASC

DURING the last eighteen months silicon rectifiers have become available on the Australian market. To date, the only references I have seen regarding their use in power supplies for Amateur equipment have appeared in "QST," "CQ," and the February 1960 issue of "Short Wave Magazine". It was not until they were mass produced for use in television sets that prices decreased. Even now, silicon rectifiers will cost more than thermionic rectifiers for many applications, but they have advantages that make them worthwhile.

This précis of current trends shows how we may benefit from their use.

As with most items of electronic equipment, silicon rectifiers have certain disadvantages and these must be borne in mind when designing equipment. To date they are not available in a full range and direct replacements for valves are not yet available. [Warburton Franki, agents for International Rectifiers, can supply most types, as can Mullard and A.W.A.—Ed.]

The two factors which the Amateur needs to keep firmly in mind are: **The Peak Inverse Voltage Rating (p.i.v.)** and the fact that their **Thermal Inertia** is very much less than that of thermionic, selenium or copper oxide rectifiers.

For years we have been prone to use valves such as the 5Y3GT, 5U4G, 5V4G and 83 beyond their ratings, but this cannot be done with silicon rectifiers.

The advantages of silicon rectifiers can be summed up as follows:—

1. They are much more efficient than other types, i.e. up to 99%. [Based upon power input versus power output.—Ed.]
2. They are much more compact than other types.
3. They require no filament power. In transmitters this usually means a transformer is saved.
4. They have an indefinite life if used within their ratings at all times.

The types Amateurs are likely to use are:

1N1763—R.C.A./A.W.V., or Raytheon.
 OA210—Philips or Mullard.
 5D54A—International Rectifier.
 M500 or 40K—Sarkes-Tarzian.

All of which are rated at half amp. average current and 400 p.i.v.

Some types of somewhat higher p.i.v.s. are available, namely:

1N1764 and SD95 (500 p.i.v.);
 OA211 and OA214 (800 and 700 p.i.v. respectively).

The units used in my experiments have been 1N1763, which are rated at half amp. average d.c. with a capacitor input filter in half wave service, with an a.c. source of 140 volts r.m.s.

Figures are design maxima and in conjunction with their respective peak

recurrent ratings of 5 amps. and surge or "turn on" ratings, should not be exceeded.

Manufacturers quote their ratings in different ways. These different methods need to be consolidated into a common system which can be used by all Amateurs designing equipment. Culling through the published figures available, shows that there is not a great deal of uniformity about the method of rating a silicon rectifier. All makers appear to be unanimous on one point only and that is the p.i.v. which is 2.82 times the applied r.m.s. voltage, for a capacitor input filter (hence $400 \div 2.82 = 142$ volts r.m.s.; usually expressed as 140 volts r.m.s., which is a practical round figure). For quick and easy calculating it is easy to say p.i.v. divided by 3 and so allow a safety factor by reducing the figure by a further 10% for a.c. mains voltages do vary.

Makers of 400 p.i.v. rectifiers recommend values of 117 and 127 volts r.m.s. Some manufacturers show the maximum r.m.s. rating as twice this figure (280 volts) and then as a footnote state that it is only to be used with a purely resistive or inductive load.

PEAK RECURRENT RATING

This is the maximum permissible current occurring on each half cycle. R.C.A./A.W.V. and Raytheon data shows 5 amps. for the 1N1763 and Philips/Mullard the same figure for the OA210. Full data is not available on other types, but experience and the information which is available indicates that the peak recurrent ratings will be the same except perhaps in the case of the Sarkes-Tarzian type 40K which is rated at 750 m.a. average and therefore probably 7½ amps. peak recurrent.

The maximum surge or "turn on" transient rating is another important figure which differs between manufacturers. Raytheon say 10 amps. for 0.1 second, R.C.A./A.W.V. 35 amps. for 0.02 second, and Philips say that the switch on surge should be limited to 25 amps, but do not quote a time.

Readers may refer to "Radiotronics" for June and September 1959 for details of the 1N1763 and 1N1764, and to *Miniwatt* "Germanium and Silicon Transistors and Diodes," Fifth Edition, for details of the OA210, OA211 and OA214. [Warburton Franki furnish full data sheets for all their rectifiers.—Ed.]

In some circuits it may be necessary to limit the "switch on" current to a safe figure by increasing the source resistance. In most Amateur designs, transformers will be used and these have finite primary and secondary resistances which may be sufficient to limit the peak recurrent and surge currents to safe values.

Philips, on page 81 of their publication, show how to calculate the source resistance after taking a few simple resistance measurements on the trans-

former being used. When a transformer is present between the mains and the rectifier

$R_t = R_s + N^2 R_p + R_L$
 where R_t is the total effective resistance in ohms.

R_s is the secondary resistance in ohms.

R_p is the primary resistance in ohms.

R_L is the additional series resistance (if any) to be added.

N is the turns ratio.

Taking a typical t.v. power transformer, the primary resistance (230v.) is 11.8 ohms, secondary 67 ohms. The turns ratio is close enough to 2:1. Therefore $R_t = 67 + (4 \times 11.8)$, i.e. 114 ohms. This is more than adequate for our purpose, in fact the regulation of the supply is very largely dependent on the transformer itself.

In our rectifier circuit we will need to use one eight hundred p.i.v. or two 400 p.i.v. units in each leg of the bridge across the 450 volts secondary with an effective series resistance of 114 ohms which limits the short circuit current to 4 amps.

CHECKING THE TRANSFORMER

The previous method is a fairly safe way of getting the right result, but it is possible to make a mistake in your calculations and so ruin the silicon rectifiers. To eliminate this possibility it is advisable to make an additional check on the transformer to ensure that the effective resistance is satisfactory.

To find the effective internal resistance of the transformer, measure the secondary voltage with no load, measure again with a convenient load (mine was two 60w. lamps in series), subtract the latter from the former and divide it by the current flowing and you will have the effective resistance.

$$(450 - 423) \div 0.2 = 27 \div 0.2 = 135 \text{ ohms.}$$

Measuring open circuit voltage and short circuit current is another method and gave the following result

$$450 \div 3.8 = 118 \text{ ohms.}$$

Warning.—These are alternating voltages and currents you are measuring and you must have an alternating current ammeter. A voltmeter alone is not sufficient. Only close the switch for long enough to take a reading. With a low voltage applied to the primary of the transformer, the value came out at about half the real figure, possibly due to improper excitation.

The output voltage available across the first filter capacitor, with no load, is $450 \times 1.42 = 620$ v.d.c. which is also applied across the rectifiers on the negative half cycle, and so the chain must be rated at 1,240 volts minimum. Four 400 p.i.v. units in series across this supply provides a safety margin with a p.i.v. rating of 1,600 volts.

(Continued on Page 11)

The Design of the R155*

GENERAL CIRCUIT ARRANGEMENT AND AMATEUR BAND APPLICATIONS

THOUGH of vintage 1940, the R155 has remained one of the most popular "surplus" receivers for Amateur-band operation, largely because it is still easy to buy. Intended originally for aircraft operation as the companion unit for the well known T1154 transmitter—discussed in some detail in the December 1955 issue of "The Short Wave Magazine"—the design of the R155 is basically very good. (It was prototyped by the Royal Aircraft Establishment, Farnborough, and manufactured under contract in large quantities by several well known radio

firms.) In Service use, the receiver was found to be easily adaptable for ground-station working.

A great many Amateurs have since made the same discovery, and today there are few operators in this country who are not aware of the R155, even if they do not own one. It is also of interest to add that the design of the Radiovision "Hambander," in its time another very successful receiver, was largely inspired by the R155.

CIRCUIT ARRANGEMENT

The diagram of Fig. 1 is a simplified version of the communication circuits of the R1155—in the airborne applica-

tion, it also provided direction finding and homing facilities by a direct-reading course meter, but those functions are not discussed here because they are of no practical interest from the Amateur Radio point of view.

To make it easy for those possessing an R1155, and wishing to know more about its interior, the circuit nomenclature used in Fig. 1 follows that of the Service Manual on the receiver.

The communication circuitry amounts to r.f., i.f. and two i.f. stages into a detector-output valve, with separate valves for a.v.c. operation combined with b.f.o., and a "magic eye" visual tuning indicator. (The latter is not

* Reprinted from "The Short Wave Magazine," May 1957.

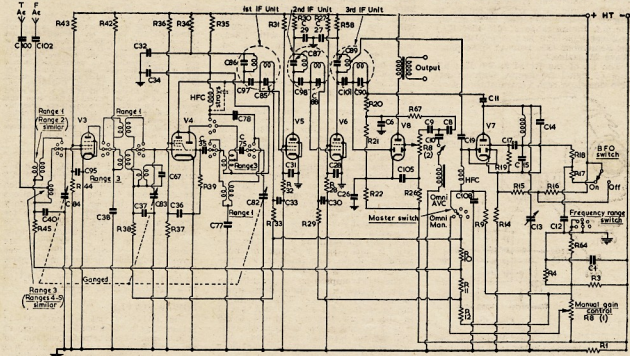


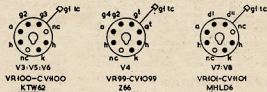
Fig. 1. Simplified diagram of the R1155 communications circuits, discussed in the text. T, Ae is the "trailing" (long wire) aerial connection, which goes to Pin 2 of the Plug P1 (see Fig. 2) and F, Ae is the "fixed" aerial, corresponding to any short wire of 25-40 feet, going to Pin 1; in certain circumstances, better results will be obtained by trying either one of these. The KTW62 at V3, V5, V6 is now obsolete, as is the MHLDS at V7, V8, but supplies are available from "surplus" sources. The Z66 at V4 is a current-production type (G.E.C.). Pluggable equivalents of these valves in current production are the W61 (or earlier KTW61) for V3, V5, V6, with the DIALs for V7, V8. The 1F of the R1155 is 560 kc, on the HF side of signal frequency, with a selectivity factor of 5 kc.

C1—2.5 μ F.
C5, C11—C17—100 pF.
C8, C9, C19, C102—0.001 μ F.
C10—0.004 μ F.
C12, C26, C27, C28, C29, C30, C31, C32, C33, C34, C36, C37, C38, C40, C105—0.1 μ F.
C13—75 pF, semi-variable (see text).
C14—0.0018 μ F.
C15—0.00485 μ F.
C35, C108—200 pF.
C67—0.005 μ F.
C78—337 pF.
C77—0.00617 μ F.

C78—15 pF.
C82, C83, C84—Main tuning gang assembly.
C85, C86, C87, C88, C90—300 pF.
C89—500 pF.
C85—0.5 pF.
C97, C98—2 pF.
C106—200 pF.
C101—4 pF.
R1—2,000 ohms.
R3—1,200 ohms.
R4—120 ohms.
R8(1), R8(2)—50,000/500,000 ohm dual potentiometer (see text).

R9—2 megohms.
R10, R11—150,000 ohms.
R12, R16, R27, R31, R36, R43—27,000 ohms.
R14, R22—1,000 ohms.
R15—30,000 ohms.
R17—1,500 ohms.
R18—10,000 ohms.
R19, R20, R38—56,000 ohms.
R21—470,000 ohms.
R26, R29, R33, R38, R45—100,000 ohms.
R28, R32, R35, R37, R44, R67—22,000 ohms.
R30, R34, R42, R58—2,200 ohms.
R64—200 ohms.

Note.—Circuit nomenclature as Service Manual.



shown in Fig. 1.) The audio output, while being adequate for headphones, is not sufficient for a speaker.

Since the R1155 is a general-coverage receiver, it suffers (from the Amateur viewpoint) by reason of having no bandspread. This means that the 7 and 14 Mc. bands cover only a few notches on the dial. Moreover, the 21 and 28 Mc. bands are not tuned at all, nor is 160 metres—a very severe disadvantage. The short-wave coverage is 3.0 to 18.5 Mc., meaning that the R1155 can be operated as it stands only on the 3.5, 7 and 14 Mc. Amateur bands. It is very good on 80 metres.

Effective bandspread can be obtained by putting a small 10 or 15 pF. variable capacity in parallel with the oscillator tuned circuit; as this capacity will only sweep a small proportion of any one h.f. tuning range, tracking will not be seriously affected, though of course calibration will be put out.

To get on to 15 and 10 metres a converter arrangement is necessary, while for Top Band it is possible either to employ another converter, or to modify the m.f. tuning range 3 (600-1500 Kc.) to cover 1800-2000 Kc., as explained in the September 1956 issue of "The Short Wave Magazine."

The i.f. of the R1155 is 560 Kc., h.f. side of signal frequency, with adjustable dust-iron core i.f. transformers.

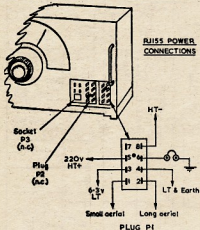


Fig. 2.

This sketch is to locate the R1155 power plug and its connections, looked at from the front as the receiver is viewed. To operate the set as a normal communications receiver, socket P3 and plug P2 are ignored, connections as shown being made to P1. The headset can be connected across pins 6-4 or 6-5 if pin 4 is earthed, as shown here. Pin 7 connects h.t. plus to V1, V2 which are the d.f. valves, not used at all in the communications application; these circuits are only brought in when the main (right-hand) panel switch is moved to the 'balance', 'visual' and '00' positions.

VALVE SUBSTITUTION

The original valve types were: VR100 for V3, V5, V6, equivalent to the CV1100, which is the old Osram KT62, replaceable by the later G.E.C. W61 (KTW61). V4 used a VR99, also named CV1099 and actually a Z66, still in the current G.E.C. range; and for V7, V8 the type was a VR101 (CV1101) which is the original Osram MHL6, now obsolete, but replaceable by the G.E.C. DL63 double-diode triode. (The equivalents mentioned here are directly

pluggable, without re-wiring of any sort, being necessary.) The "magic-eye" is a V1103, which is the same as the G.E.C. Y63 in the current range.

Unless the receiver is bought as "brand new, unused, in original packing," one of the first things to do is to give it a new suit of valves.

A.V.C. AND B.F.O.

When the master switch is in the "omni" position, the gain of V3-V4-V5-V6, together, can be controlled by potentiometer R8(1), the resistor network being so arranged that (at 220v. h.t.) any negative voltage from about -4 up to -30 volts is given by the slider of R8(1).

With the master switch at "a.v.c." the gain of stages V3-V6 inclusive is controlled automatically by the level of the incoming signal, with R8(2) as the manual audio gain control.

Since in the actual design R8(1) and R8(2) are ganged together to the one knob marked "volume control," from a study of the circuit it is evident that with the master switch at "omni," R8(1) only is operative—with R8(2) out of circuit—while with a.v.c. on, audio gain R8(2) alone is available. This means that there is no manual control of audio gain, by itself, when a.v.c. is off, the output being in effect controlled by R8(1), as a "manual a.v.c." knob.

It is for this reason that one of the modifications sometimes advocated is the physical separation of R8(1) and R8(2), so that they can be used independently; in fact, this modification is not really necessary.

In the a.v.c. circuitry, the degree of bias is proportioned between V3-V6 in such a way as to give a sort of "graded control" in the interests of good signal-noise ratio. That is to say, while V4, V5 take the full a.v.c. bias volts, V3 gets half this voltage, and V6 only one-tenth. The a.v.c. delay is about 13 volts, and the resulting a.v.c. characteristic is such that a change in input signal of 80 db. only produces a variation in output level of 8 db.

The triode section of V7 provides the b.f.o., the Colpitts oscillator being tuned to half-i.f., i.e. 280 Kc. What should be the variable pitch b.f.o. control is C13 in the circuit diagram. In the R1155 it is fitted not as an independent control, but for screwdriver ("fixed") adjustment. An obvious improvement here is to put in a condenser which can be knob controlled.

OUTPUT END

The maximum attainable audio output is 100 mW. which is ample for a headset, but, as already mentioned, means that an additional l.f. valve must be fitted for speaker operation—see under "Power Supply".

In the output side of the set there is incorporated an l.f. filter or noise limiter consisting of a choke with condensers C8, C9, C10, controlled by a switch. The purpose of this is to suppress all audio frequencies below 300 cycles, which it does most effectively; it works very well on high-level peaky noise and "sharsh."

Also on the output side there is a tuning indicator V10—not shown in the circuit of Fig. 1—which is driven off

the a.v.c. line (the full a.v.c. is always applied to the magic-eye tube, irrespective of whether a.v.c. or manual gain controls are used); hence, it could easily be replaced by an S meter unit operating on the principle of that described elsewhere in this issue.

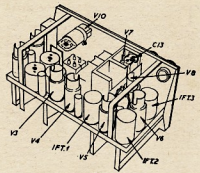


Fig. 3.

Outline sketch of the R1155 chassis, rear view) to locate main items shown in the circuit at Fig. 1. Valves and canned coils not marked here are for the d.f. function of the receiver, and could well be removed, together with the connections to the "balance," "visual" and "00" positions of the main panel switch. V10 is the magic-eye tuning indicator (not shown in the Fig. 1 circuitry) and is driven off the receiver a.v.c. line, its grid being connected to the top end of R9 in Fig. 1. V10 could be replaced by the current G.E.C. type Y63, which is pluggable, or the magic-eye assembly removed altogether and replaced by an S meter. All elements marked in this sketch correspond to the Fig. 1 nomenclature, and are as given in the Service Manual on the R1155.

THE AUXILIARY CIRCUITS

The circuitry of the R1155 also incorporates three further valves (V1, V2 and V9, not shown in Fig. 1) which are additional to the communications section of the receiver. These auxiliary circuits are there only to provide for direction finding and homing. In the sketch at Fig. 3, the circuit elements associated with the d.f. functions are unmarked; they can, in fact, be removed altogether, to leave more space on the main chassis, since they play no part in the operation of the R1155 as a communications receiver.

POWER SUPPLY

The R1155 is not self-powered—in Service use, a complicated arrangement of h.t. and l.t. generators, driven off the aircraft main electrical line, was involved—so that another "modification" called for is the provision of a standard type of a.c. power pack. This should give about 60 mA. at 220 volts h.t., with 6.3 volts at 3 amps. or so for l.t.

In some modifications a 6V6 (or G.E.C. KT63) as output audio amplifier is built on to the same chassis as the power pack, to form a complete unit operated externally to the main receiver. In this case, the grid connection for the output amplifier can be taken off pin 6 of the power plug P1—see Fig. 2.

The sketch at Fig. 2 locates the power inlet plug and its pin connections. The other two entries, plug P2 and socket P3, can be ignored; they are the connection points for the d.f. function of the receiver, including the remote reading visual course indicator.

FURTHER INFORMATION FROM THE SERVICE MANUAL

As an aid to readers, the following information is extracted from the Service Manual.

The frequency ranges are:—

- Range 1—18.5 to 7.5 Mc.
(no d.f. on this range)
" 2—7.5 to 3 Mc.
" 3—1500 to 600 Kc.
" 4—500 to 250 Kc.
" 5—200 to 75 Kc.

On Range 4 the aerial should be loaded by 80 pF. There is an i.f. wave trap in the signal grid circuit of the first mixer. Standard type i.f.t. are used with capacity coupling between coils to give a bandpass of 5 Kc. The Colpitts b.f.o. circuit is tuned to 280 Kc. 3 Kc. and second harmonic injection is used.

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FAULT FINDING

The following is the official component tests for the points named:—

Components	Test Points	Resistance or Voltage
I.F. Coils:		
L19 P.	V4 anode to R34, C32 ..	2 ohms
L19 S.	V5 grid to R33, C33 ..	
L20 P.	V5 anode to R30, C29 ..	
L20 S.	V6 grid to R29, C30 ..	
L21 P.	V6 anode to R58, C27 ..	
L21 S.	V7 diode to R20, C11 ..	
B.F.O. Coil, L22	Fixed plates C13 to R18	5 ohms
Limiter diode choke L28	V6 diode limiter ..	130 ohms
A.V.C. choke L25	V7 diodes to C108, R68	130 ohms
L.F. filter choke L29	S5 switch to earth ..	2,020 ohms
Output transformer L30	(P.) V8 anode to pin 5 power plug	1,528 ohms
	(S.) pin 6 power plug to earth ..	1,063 ohms
Aerial circuit:		
Range 1 input ..	V3 grid to C40 junction ..	less than 1 ohm
" 2 " ..		less than 1 ohm
" 3 " ..		less than 3.5 ohms
" 4 " ..		less than 11 ohms
" 5 " ..		less than 78 ohms
V4 input circuit ..	V4 grid to C37, R38 junction ..	less than 1 ohm
Range 2 ..	Switch to R2 ..	less than 1 ohm
" 3 ..	" R3 ..	less than 3.5 ohms
" 4 ..	" R4 ..	less than 11 ohms
" 5 ..	" R5 ..	less than 78 ohms
Oscillator anode coil	Range 3—C34, R35 to C75 ..	2.5 ohms
	" 4—C34, R35 to C74 ..	4.5 ohms
	" 5—C34, R35 to C73 ..	8.5 ohms
V4 oscillator circuit ..	V4 osc. grid cond. C35 (ZF12 contact) to joint R35, C34	
Range 1 ..	Switch to R1 ..	infinity
" 2 ..	" R2 ..	infinity
" 3 ..	" R3 ..	1,600 ohms
" 4 ..	" R4 ..	1,650 ohms
" 5 ..	" R5 ..	0.5 ohm
H.F. Ranges 1 and 2	ZF12 to ZF6, Ranges 1 and 2 ..	0.5 ohm
	Ranges 3, 4 and 5 ..	infinity
Oscillator anode coil taps ..	ZR6 to C35 or ZR12:	
	Range 1 ..	infinity
	" 2 ..	infinity
	" 3 ..	1,600 ohms
	" 4 ..	1,600 ohms
	" 5 ..	1.5 ohms
Output transformer ..	Withdraw meter plug, measure between pin 6 and C93 ..	1,528 ohms
L.T. volts ..	Withdraw meter plug, measure across plug 4 and 5 ..	6-7.5 volts
H.T. volts ..	Measure across plug 4 and 6 ..	200 volts
Standing bias:	M.F. R12 and chassis. Remote V/C to omni-max.	—3 volts
V3, V4, V5, V6 ..	H.F. R12 and chassis. Remote V/C to omni-max.	—1.5 volts
D.C. resistance across	Withdraw meter plug, measure between pin 6 and chassis ..	11,000 ohms
H.T. pos. & H.T. neg.	Withdraw meter plug, measure between pins 7 and 8, using A.C. volt ranges ..	"slow," 28 volts "high," 35 volts
A.F. oscillator ..		
Colour Code Wiring ..	Red—H.T. positive Yellow—H.T. negative Blue—L.T. positive Green—grids Black—earth.	
Switches ..	W is aerial input, X is grid V3, Z is grid and oscillator V4.	
Valves ..	V3 is R.F. amplifier, variable mu tetrode. V4 is 1st mixer, triode hexode. V5 is 1st I.F., V6 is 2nd I.F., V7 is B.F.O. and A.V.C. V8 is detector, output, meter limiter. V9 is meter switching.	



The WARBURTON FRANKI Page

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HEATHKIT SG-8, R.F. SIGNAL GENERATOR

Align tuned circuits quickly and easily with this fine kit. Also useful in tracing services in faulty RF, IF and audio circuits. Designed for general service applications, the SG-8 covers 160 Kc. to 110 Mc. on fundamentals in five bands and from 110 Mc. to 220 Mc. on calibrated harmonics. The entire oscillator circuit is built on a special sub-chassis using prewound and calibrated coils. No further calibration is required, so it is ready to use when construction is completed. RF output is in excess of 100,000 microvolts, controlled by both step and continuously variable controls. May be modulated internally at 400 c.p.s. or externally at other frequencies. Complete with output cable and instructions.



HEATHKIT V-7A, V.T.V.M. KIT

Specifications: DC Volts: 7 ranges 0-1.5 to 0-1,500. Input resistance: 11 megohms. Sensitivity: 7,333,333 ohms per volt on 1.5v. range. Accuracy plus or minus 3% full scale. AC Volts: 7 r.m.s. ranges 0-1.5 to 0-1,500. Frequency response (5v. range): Plus or minus 1 db., 42 c.p.s. to 7.2 Mc. Accuracy plus or minus 5% full scale. 7 peak-to-peak ranges 0-4 to 0-4,000. Resistance: 7 ranges measures 0.1 ohm to 1,000 megohms with internal battery. Size 7 7/8 x 4-11/16 x 4 1/4 inches.



HEATHKIT OS-1, 3" SERVICEMAN'S 'SCOPE

Y AMPLIFIER:

Sensitivity: 10 mV. (r.m.s.) per cm. (X1 input).
Frequency Response: Plus or minus 1 db., 10 c/s. — 1.5 Mc.
Plus or minus 3 db., 10 c/s. — 2.5 Mc.
Input Impedance: X1 attenuator input — 1 M. shunted by 20 pF.
X10 attenuator input — 1 M. shunted by 10 pF.
Input Circuit: Built-in blocking capacitor rated at 600 volt DC.
Y Shift: DC type permits placement of undeflected trace at any horizontal level on usable area plus or minus 2 cm. from centre of screen. Positioning is instantaneous.

X AMPLIFIER:

Sensitivity: 1 volt (r.m.s.) per cm. at 1 Kc.
Frequency Response: Plus or minus 3 db., 150 c/s. — 500 Kc.
X Shift: Approx. plus or minus 2 1/2 cm. from centre.

HEATHKIT O-12, 5" OSCILLOSCOPE

VERTICAL CHANNEL:

Sensitivity: 0.025 volt (r.m.s.) per inch at 1 Kc.
Frequency Response: Flat within plus or minus 1 db. from 8 c.p.s. to 2.5 Mc. Flat plus 1.5 to minus 5 db. from 3 c.p.s. to 5 Mc.
Response at 2.5 Mc., minus 2.2 db. (All response measurements referred to 1 Kc.)
Rise Time: 0.08 microseconds or less.
Overshoot: 10% or less.

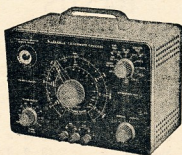
HORIZONTAL CHANNEL:

Sensitivity: 0.3 volt (r.m.s.) per inch at 1 Kc.
Frequency Response: Flat within plus or minus 1 db. 1 c.p.s. to 200 Kc. Flat within plus or minus 3 db. 1 c.p.s. to 400 Kc.
Attenuator: Low impedance type in cathode follower output.
Input Characteristics: Selector switch permits use of external input through panel terminal, line-frequency sweep of variable phase or internal sweep from sweep generator.
Horizontal Positioning: DC type, permits wide range of positioning to examine any part of trace even with full horizontal gain.



HEATHKIT C-3U, RESISTANCE-CAPACITANCE BRIDGE

AC powered, highly portable, a real time-saver, reliable and very simple to use. Measures a wide range of capacitance (0.0001 to 1,000 pF.). Power Factor, and also indicates Leakage. Polarising voltages of from 5 to 450 volts are available. The Model C-3U measures Resistance (100 ohms to 5 megohms) too. All readings are taken from the large calibrated scales direct; no calculations are required. Bridge-balance (null-indication) and also Leakage is indicated by means of a dual-sensitive Magic-Eye electronic beam. For safety reasons the entire instrument is isolated from the supply mains by means of a double-wound transformer, the secondary of which delivers the DC polarising voltages via a selenium rectifier for reliability and efficiency. The C-3U's on-off switch disconnects BOTH mains leads from the transformer's primary winding when switched off.



WARBURTON FRANKI

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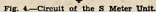
VIC.—315 LONSDALE ST., MELB., 67-8351
QLD.—233 ELIZABETH ST., BRIS., 31-2081

• N.S.W.—307 KENT ST., SYDNEY — BX 1111
• S.A.—204 FLINDERS ST., ADELAIDE—W 1711

SIMPLE AUXILIARY UNIT AND A METHOD OF CALIBRATION

* Reprinted from "The Short Wave Magazine,"
March, 1967.

It is here that a certain amount of adjustment and cut-and-try may be necessary in the preliminary setting-up. Obviously, one does not want the meter valve to cut off before the strongest signal likely to be received is turned in.



And when you see that meter needle swing across the scale as you tune 'em in, you will never regret the time and trouble it may have taken you to get thus far.

YW 1715

H.R.O. ALIGNMENT DATA

MANY H.R.O. receivers have become available from disposal sources, and their new owners may not know how to bring them up to peak performance. The following data will assist all H.R.O. owners to ensure that their receivers are operating in first class order.

The first step is to purchase new paper condensers to replace every condenser in the set. In addition, two 25 μ F. electrolytic (50 volt) condensers will be required. Remove one condenser at a time from the set and replace it with a new one. (By so doing, you cannot affect the set's performance by rendering it inoperative because no condenser is replaced in any frequency determining location.) Having done this and replaced all condensers, the set can then be re-aligned as follows:

Let the set run for two hours before commencing re-alignment.

Disconnect the aerial, a.v.c. off, r.f. gain at 9, crystal filter ON, phasing control at 5 (central), selectivity maximum, and c.w. osc. on. The c.w. osc. control should be turned until the background noise is lowest (i.e. about 9) and the exact setting noted. Disconnect the phasing control (turn to 0) and set the selectivity control for lowest background noise. If the i.f. is correct the c.w. osc. will have the same dial reading. If not, then the i.f. requires alignment. To do this, connect the aerial, set r.f. gain at 9, connect the crystal filter and tune in a steady c.w. signal, tuned exactly to the crystal peak response. Trim all i.f. transformers for maximum output; if the gain has to be reduced remove the aerial, but do not reduce the r.f. gain control. Repeat the above until the i.f. strip is correctly aligned.

The c.w. osc. may be adjusted for beat note by varying the trimmers on top of the b.f.o. coil; left hand front corner.

To adjust the coil boxes, set all controls normally, r.f. gain max., c.w. osc. off, a.v.c. off, phasing control at 0, selectivity control for maximum back-

ground noise. The following data applies to the general coverage coils and it should be remembered that the adjustments for general coverage must be made before altering the bandwidth coils. To change to bandwidth, place the coil screws in the right hand screw holes.

Coil	High		Low		Note
	Dial	Freq.	Dial	Freq.	
D	490	4 Mc.	13.5	1.7 Mc.	
A	485	30 Mc.	20	14 Mc.	1
C	490	7.3 Mc.	50	3.5 Mc.	
B	485	14.4 Mc.	50	7 Mc.	
E	470	2 Mc.	50	900 Kc.	2
F	436	900 Kc.	50	480 Kc.	3
G	450	400 Kc.	50	180 Kc.	3
H	490	200 Kc.	50	100 Kc.	3
J	490	100 Kc.	50	50 Kc.	3

Note 1—Bend the oscillator wire leads from the gang to the coil box to adjust the 14 Mc. setting, then repeat the procedure for coil "D".

" 2—Trim the r.f. stages with the dial set at 490.

" 3—As for Note 2, but adjust the low end by means of the padders located at the rear of the oscillator coil box. (If other coil sets are very far out from calibration the oscillator coil may have the half turn loop of wire (inside the coil former) moved until the low end calibration is correct.

" 4—In every case the image will appear at a lower dial setting.

" 5—The r.f. and mixer trimmers are adjusted for maximum noise output, without any aerial connected, and the dial should be set as shown for each coil box.

The above procedure will enable you to re-align your H.R.O. and can be carried out by anyone who is prepared to take their time. The final results de-

pend upon the care with which the coil boxes are re-aligned.

The trimmer controls are located directly alongside the inside front panel, and reading from right to left are as follows (in every case refer to the right hand trimmer in each coil set, the left hand trimmers only apply to the bandwidth settings): Oscillator, first mixer second r.f., first r.f. stage.

To adjust the bandwidth coils, place the coil screw in the right hand screw slot. Bandspread adjustments will not affect the general coverage setting, but the converse does not apply.

The dial should be set at 450 and the coil set adjusted for the frequency as shown on the chart (e.g. 0.4 Mc.) by trimming the left hand oscillator trimmer; the other trimmers should then be peaked for maximum background noise—without an aerial connected. The dial is then set at 50 and the low frequency band edge adjusted by the series trimmer at the back of the oscillator coil. Re-adjust the other left hand front trimmers and see if the background noise increases. If it does, adjust the trimmers at the back of each coil set. Repeat the above until an even background noise and correct tracking is obtained over the entire bandwidth range.

By doing this apparently complicated task, which in reality is very simple, you will have your H.R.O. performing like new.

The above data applies to the following series of H.R.O.'s: H.R.O., H.R.O.-5, H.R.O.-5T, H.R.O.-SR, H.R.O.-M, H.R.O.-MX, H.R.O.-MR, H.R.O.-MTM, H.R.O.-SR and the H.R.O.-JR.

If required, an article could be prepared upon adding a new r.f. stage, and product detector; which in combination really up-grade your H.R.O. Drop a line if you wish this article to appear in "A.R."

—VK3ZFQ.

HINTS AND KINKS

HOME-BREW TEST PRODS

Materials required: Two "BIC" ball point pens (used or not, they are very cheap), two banana plugs (red and black), and two hook-up wire leads (red and black).

Take the pens, remove the brass inserts and then the ink tubes. After cleaning the insert cavity, solder in each wire, keeping solder off the outside.

Drill a clearance hole for the wires in the top plastic plug of each pen and thread the wires through, replacing the inserts in their original position. Finally fit the banana plugs and that's all there is to it!—VK3UJ.

MODIFICATION TO FT243 CRYSTAL HOLDERS

The popular FT243 type crystals can be made to fit the 1 large-pin crystal sockets (such as used on the 522) by using the pins from an old tube base. Take any old tube that has large type pins, break off its base and remove two pins. Open the seam on these pins with a sharp screw driver or knife and slide them over the pins of the 243 crystal. Now the crystal, with its new pins, will fit the large wide spaced socket.

—Courtesy "QST," May 1959.

DURALUMIN, ALUMINIUM ALLOY TUBING

IDEAL FOR BEAM AERIALS & T.V.

★ LIGHT ★ STRONG ★ NON-CORROSIVE

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ANTENNAE FOR THE S.W.L.

DON GRANTLEY, BERS-1002

OVER the past 12 months it has been my pleasure to have received many letters from s.w.l.s. all over the world, many of whom have been VKs. In the general course of this correspondence the subject of receiving antennae has naturally enough cropped up on many occasions. I have had a lot of enquiries about the aerial system used at my previous location, where I was fortunate in logging such a large amount of really good DX. In view of these enquiries, and of the fact that the s.w.l. movement is growing to such an extent, I thought it a good idea to compile a short article on the various systems which have been tried and proved by myself and other s.w.l.s. I present these few comments to you, trusting that our past efforts may help you to better listening.

LONG WIRE

Possibly the most simple of all, this antenna is, in my opinion, the best all round receiving line. I used one for years in VK3, and again when I first returned to VK2. In fact I still use the type at this location.

Height is of paramount importance, taking the earth and aerial as two plates of a capacitor, the electrostatic field creating a voltage between them. The greater the spacing, the higher the voltage; the higher the voltage, the stronger the signal.

The gain of the long wire increases with the length, and the antenna, being basically an harmonic antenna, is suitable for operation on all bands. I used two of them at my previous QTH, one running N.E./S.W., the other N.W./S.E.; length of each one was approximately 270 feet. However, to be classed as a long wire, the line must be more than a half wave on the lowest frequency used.

VEE BEAM AND RHOMBIC

I found that both of these antennae were superior to the long wire, but not enough to warrant the more complicated erection. Details of these lines won't be entered into here, but full information can be found in the A.R.R.L. Handbook.

These long wire types of antennae are, in my opinion, the best of any for receiving, but very little use to the unfortunate s.w.l. who is confined to the limits of a quarter acre city or suburban allotment. A respectable long wire would require at least two blocks, and if you wanted a pair of them or a rhombic, then you want a respectable sized sheep station. They are very directional also. Don VK2RS was describing VK3BM's fabulous 60 acres of vee beams to Mac Hilliard and myself recently, and in so doing, commented that by switching the vee from one direction to another, an apparently dead band came to life, whilst a completely different set of signals could be heard on another occasion from either direction.

But back to the city dweller. The best he can do, and the ideal system, is of course a rotary beam, however not everybody can afford one, so we have to overcome this by some means. I have tried several systems and the following comments can be made as applicable to my QTH at Holbrook.

MINIATURE GROUND PLANE

A 15 metre version of this is described in "CQ" July 1958. It must be pointed out at this stage that although this antenna operated perfectly well on all bands (mine was cut to 20 metres), it is very partial to a little noise.

Situated some half mile from the Hume Highway, the long wire would not pick up the noises from the transports, however when switched to the ground plane the signal was very little less yet the noise from the motors jumped alarmingly, particularly on ten metres.

ZL SPECIAL

Favourable comments have been received on this beam, but I have tried only the shortened version as described by DL3AO in "CQ" July 1959. The original version has half wavelength elements, the shortened uses three-eighths. It is light, being constructed from bamboo or dowel and 300 ohm twin lead, thus it presents little or no trouble when being rotated.

I won't go into details here, but the results are what we seek. In this case a given signal compared equally to the ground plane with less noise, and little below the long wire.

CUBICAL QUAD

I tried it on 10 and consider for the trouble involved I could have just as easily stuck to the ground plane. Very good for transmitting, but an unnecessary waste of time, energy and material for receiving.

BEAM ANTENNAE

On their own in their field, type and performance usually limited only by the size of one's pocket, however the experienced s.w.l. would consider them a complete waste of money when erected for receiving only, particularly when simplest types can be erected.

Bill Orr's "Beam Antenna Handbook" has all the answers to this type of antenna and would-be beam constructors could do a lot worse than obtain a copy of this book.

Our s.w.l. secretary in VK3 has details of a very simple two-element beam, easy to make, light in weight (and cost), and very effective. Either Maurice or myself will pass on full details of it for the asking.

VERTICAL

There are several types of vertical from ground plane to an elaborate device constructed from downpipe. We have discussed the ground plane, and as for a normal vertical, let it suffice to say that Eric BERS-195 uses one, and no one can dispute his results.

SUMMING UP

Let us look at the s.w.l. QSL ladder. Take the top four in countries heard. Eric, as previously mentioned, uses a vertical, but also has a long wire. Rod de Balfour uses a cubical quad. The writer settles for a ground plane and a pair of long wires, whilst Mac Hilliard has a 6GU beam on order.

Maybe it's personal taste which controls the type you use, but if the band is open you will receive plenty, enough to keep you busy for as long as you care to listen.

Recently I was using a three-tube regenerative receiver and logged some 30 entries from all over the world in a very short time, only to realise that I had the indoor "picture rail" wire switched to it. On switching in the 40 metre window, which is a glorified long wire, results were not vastly improved. Date was 18/4/60, band 20 metres, and it was wider open than I have ever heard it.

PRESELECTORS

Several have been tried here, but the best of all was the one using a pair of 6AC7s, described a few years ago in "A.R.", by VK5AX. This unit is used by many listeners, and all praise its very efficient performance.

TUNING UNITS

Several antenna couplers have been described, but the one which I find most effective is described by Don Stoner in his Novice and Technician Handbook. It helps a lot when conditions are bad, but I rarely use it, for there is plenty to log without it.

NEW ANTENNAE

From time to time new designs are published and it is worth noting here that in most cases any good transmitting antenna will do as well on the receiver. — . . . —

EXHIBITION OF RADIO GEAR

The Geelong Amateur Radio Club will hold an Exhibition at their club rooms, rear of Congregational Church, Gherringham Street, Geelong, on Friday and Saturday, 9th and 10th September, 1960.

Exhibits will include all types of equipment in use by Amateurs and S.w.l.s.

A competition will be conducted for the best piece of gear constructed by Club members.

Amateur stations will be in operation during the Exhibition and Amateurs are requested to look out for these stations operating from the Exhibition and give them many QSOs.

All members of the public are invited, particularly visiting Amateurs and S.w.l.s.

A small charge will be made for admittance.

A Miniature Tone Oscillator

A USEFUL addition to a v.h.f. transmitter is an audio tone generator, but often the inclusion in portable or mobile equipment is dictated by size and power requirements. This problem was tackled recently in a miniature 2 metre transmitter and the results may be of interest.

The simplest form of relaxation oscillator was first tried, and this consisted of a NE2 neon lamp and by-pass capacitor supplied with d.c. through a high value resistor.

As these neons strike and extinguish at 80-100 volt, the audio output voltage is far too great for direct application to a modulator, and so a certain amount of attenuation is necessary. Unfortunately, this does not prevent direct radiation from the oscillator getting into the earlier stages of the modulator, and the result is usually very broad modulation.

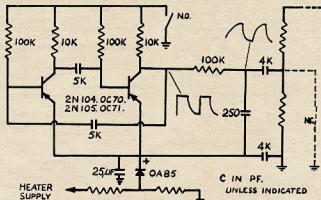
A multivibrator using two transistors, and fed from the transmitter or modulator i.e. supply, gives the same advantages of R/C frequency control, but greatly reduced output. The circuit is designed around any of the common small-signal transistors, operating in similar fashion to the well known twin triode relaxation oscillator or a stable multivibrator.

The waveforms show the effect of the integrator in rounding the sharp corners to something like a sine wave, preventing any possibility of ringing in the modulation transformer resulting in a broad "peaky" signal.

The inclusion of a diode and filter capacitor in the voltage supply permits use on a.c. or d.c. and a voltage divider either fixed or variable, provides a convenient means of adjusting the output. With a supply voltage of 3 volts, the oscillator draws about 300 microamps., which will surely not worry

modulation from being applied to the transistors. This may not be necessary, but the switch contact is available so it can be used.

The switch is mounted beneath the chassis of the transmitter with the operating button protruding so that it can be used as an m.c.w. morse key.



even the most ardent savers of portable power supply.

The oscillator on-off switch used in my transmitter is a micro-switchette available new or from an APX1 disposals unit. This switch has a normally open and a normally closed circuit, the former switches the supply and the latter the output, thus preventing phone

or held down by a pivoted cover to give a continuous tone for test purposes.

The entire unit, apart from the switch, is mounted on a 2" x 1" piece of matrix board and is mounted flat against the side of the 5 1/2" x 3 1/2" transmitter chassis, occupying less space than a 0.25/600v. capacitor.

Richard J. Heighway, VK3ABK/T.

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Thief Strikes Again

AMATEURS are warned that another theft of radio gear has occurred. The Federal President (VK3ZS) of the W.I.A. has had his shack broken into and has lost equipment. This theft is in the same area as that previously reported in "A.R." (Correspondence, Aug.) and the C.I.B. have asked that widespread publicity be given to this theft and request all Amateurs to report any relevant details they may know regarding any attempt to sell this equipment.

Every Amateur should record the serial number of his equipment, together with all details and should check his insurance policy to ensure that his gear is covered. In addition, his shack should be kept locked.

In both thefts the thieves only removed gear which was portable and had re-sale value, no transmitting equipment was stolen.

The co-operation of every Amateur is requested, and all are warned against purchasing any of the following types of equipment unless the seller is known to the buyer, and his reputation is beyond question.

The gear stolen was as follows:—

AR88 receiver,
BC342N receiver,
Bendix BC221 frequency meter.

And from VK3AHR:—

BC348Q receiver,
Monimach (home-made),
Magnecoorder tape recorder,
"Serviscope" c.r.o. unit,
"Heathkit" v.t.v.m.,
"Sanwa" multimeter,
Bendix BC221 with home-made power supply,
Pronto soldering gun.

Every Amateur is requested to keep a look out for such items and advise Detective Hawkins, Camberwell C.I.B., of any details they may learn.

Be warned. Do not purchase gear from strangers, record all details of your gear today, and lock your shack.

YOUR STATION COMPANION,
the . . .

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SPECIAL OCTOBER ISSUE

● The October issue of "A.R." will be an enlarged edition similar to the 1958 anniversary issue and orders for extra copies will be accepted in advance. Book now as only a limited number of spare copies will be printed, and judging from past issues there will be a large demand.

Special features will be a three-page article on "The Tunnel Diode Story," a do-it-yourself s.b. rig; s.w.r. measurements on a very popular aerial, a transistorised converter, and many other original articles by Australian Amateurs, plus all the standard features.

Book your extra copy in advance, 2/- each post paid; order a copy for your overseas friends.

BC221 FREQUENCY METER

A BC221 Frequency Meter is accurate to 25 c.p.s. OR 0.01%, whichever is the GREATER error. As an unmodulated signal generator, it provides an output of approx. 2,000 microvolts between the antenna terminal and chassis. It may be used as a means of receiving s.s.b. upon any receiver. To do this, simply connect the 221 to the set's aerial terminals and tune the 221 until the s.s.b. sounds natural. This system of s.s.b. reception removes all stability requirements from the local b.f.o. Try it.

THE CENTURY CLUB

The following DX countries have one hundred or more Amateurs, but less than one thousand: CN8, CP, CR7, CTI, EA, EI, FA, GI, GM, GV, HB, HK, KP4, KRZ, KZ5, OA, OE, ON, OQ5-6, PA0-FI, SP, TG, TI, VO, VU, YN, YU, YV, ZE, ZF and 4X4.

CONTEST CALENDAR

Sept. 3-4—Labre, c.w.
" 10-11— " phone and s.s.b.
" 10-11—Peruano, c.w.
" 17-18— " phone.
" 17-18—S.A.C., c.w.
" 24-25— " phone.
Oct. 1-2—VK-ZL, phone.
" 8-9— " c.w.
" 22-23—Boy Scouts Jamboree
" 28-30—"CQ" WW DX, phone
Nov. 25-27— " " c.w.
Dec. 3-4—R.S.G.B., 21/28 phon.

FEEDBACK ON FEEDBACK

The following amendments should be made to articles which appeared in August "A.R." "Using Overtone Oscillators." Some readers may be confused with the explanation underneath Fig. 3. The grid resistor referred to is the grid resistor of the following stage, and the unmarked resistor should have a value of 10,000 ohms. Too high a value here can prevent proper operation of the circuit. The anode coil should be resonant at the desired overtone frequency.

"CV and VI Service Tubes." Type VT28: this should read 12SL7GT, and not 12SY7GT as shown.

Queensland Notes, page 25. The correspondent is correct. The Co-editor did confuse the two types of diodes, and the OA211 would be quite suitable for the job stated.

USING SILICON RECTIFIERS

(Continued from Page 2)

Be sure to use a bleeder resistor of 15 to 25 thousand ohms across the output of the power supply to discharge the filters and prevent the switch-on surge voltage from rising above the peak value. Yes, it will go higher on some occasions if your switch closes at just the right point in the a.c. cycle. Mine actually measured up to 720 volts.

With a bleeder resistor of 20,000 ohms the measured voltage was 595v. into a capacitor input filter and 395v. on choke input. The voltages fell almost linearly to 470 volts at 330 mA. for capacitor input and 360 volts at 320 mA. for choke input with the particular transformer used. These figures were measured at the input to the filter and need to be modified according to the resistance of the filter choke(s) used.

At this stage it was decided that the regulation of this transformer was not good enough to meet my needs and the d.c. voltage I could obtain was not high enough.

Due to the facility with which silicon rectifiers can be connected into the various circuits and the fact that heater power is not required, there are many tricks that you can get up to with the various transformers that are available at very reasonable prices.

Designs have been appearing in "QST" and the A.R.R.L. Handbook for some time now using valves such as 5Y3 and 6X5s or 5U4G and 6DE4s in bridge connection. We can substitute the 6N3 for the 6DE4, but we still have to provide filament power. It is much easier to achieve the desired result with silicon elements.

Another method is to use the full wave voltage doubler circuit. A good example of this technique is seen in the power supply design for "A Desk-Top 650 Watt Amplifier" in "QST" for September 1958, and the 1960 Handbook, pages 201 to 205.

Assuming that we could achieve a similar a.c. input to d.c. output ratio and we need about 125 to 150 mA. to feed an 813. This doubler circuit means that you can get around 1,000 volts d.c. from a t.v. transformer or 1,350v. from a type giving 295 volts each side of centre tap. An ordinary "isolation transformer" 240 to 240 volt type will give about 550v. using the voltage doubler circuit and if you were to use a quadrupling circuit as recently described, if I remember correctly, in "CQ," 1,000 volts. I consider the "CQ" design, which operated directly from the mains, a rather lethal device, but by using an isolation transformer this objection is overcome.

[Next month the author will describe a 500v. 300 mA. Power Supply using Silicon Rectifiers.—Ed.]

★

ON THE SHEEP'S BACK

This saying has an Australian quality and meaning, particularly since the C.S.I.R.O. has adapted a transistor transmitter for the recording of the sheep's habits. They have fitted a small rig to the sheep's back and this, in conjunction with a radio, enables them to study the eating habits of sheep. Thus radio truly comes to the farm and perhaps future farmers may require a "ticket" before being fully qualified.



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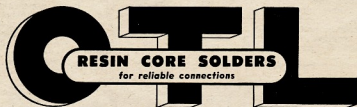
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PREDICTION CHART, SEPT. '60

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VK-ZL DX CONTEST, 1960

Objects: For the world to contact VK and ZL stations and vice versa.

When? Phone: 24 hours from 1000 G.M.T., Saturday 1st October, to 1000 G.M.T., Sunday, 2nd October.

C.w.: 24 hours from 1000 G.M.T., Saturday, 8th October, to 1000 G.M.T., Sunday, 9th October, 1960.

Duration for all contestants is 24 hours.

RULES

1. There shall be three main sections to the contest—

- (a) Transmitting phone.
- (b) Transmitting c.w.
- (c) Receiving—phone and c.w.

2. The contest is open to all licensed Amateur transmitting stations in any part of the world. No prior entry need be made. Mobile Marine or other non-land-based stations are not permitted to enter the contest.

3. All Amateur frequency bands may be used, but no cross band operating is permitted.

4. C.w. will be used during the second week-end, and phone for the first week-end. Stations entering for both sections must submit separate logs.

5. Only one contact per band is permitted with any one station for contest purposes.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a competitor, and must submit a separate log under his own call sign.

7. Entrants must operate within the terms of their licenses.

8. **Cyphers:** Before points can be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) report plus three figures which may begin with any number between 001 and 100 for the first contact, and which will increase in value by one for each successive contact, e.g. if the number chosen for the first contact is 053, then the second must be 054, followed by 055, 056, etc., If any contestant reaches 999, he will start again from 001.

9. Scoring:

(A) **Overseas Stations:** One point will be scored for each contact on a specific band with any VK or ZL district. The final score will be derived by multiplying the total contacts on all bands by the total number of VK and ZL districts worked on all bands. These are ZL1, 2, 3, 4, 5, VK1, 2, 3, 4, 5, 6, 7, 8, 9, 0.

(B) **VK and ZL Stations:** Five points for each contact on a specific band and in addition, for each new country worked on that band, **BONUS** points on the following scale will be added—

1st contact—50 points	
2nd " 40 "	
3rd " 30 "	
4th " 20 "	
5th " 10 "	

• N.Z.A.R.T. and W.I.A., the National Amateur Associations in New Zealand and Australia, invite world-wide participation in this year's VK-ZL DX Contest.

For this purpose the A.R.R.L. countries list will be used with the exception that each call area in the U.S.A. will count as a scoring area.

10. Logs:

(A) Overseas Stations—

(a) Must show in this order—date, time in G.M.T., call sign of station contacted, band used, serial number sent, serial number received. Underline each new VK and ZL district when contacted and use **separate log for each band used.**

(b) Summary sheet to show—call sign, name and address (please use **BLOCK LETTERS**), details of transmitter, etc., **TOTAL SCORE** by showing total of districts worked on all bands and total contacts on all bands. (Districts multiplied by contacts equals total score.) Sign a declaration that all rules were observed.

(B) VK and ZL Stations:

(a) Must show in this order—date, time in G.M.T., call sign of station contacted, band used, serial number sent, serial number received, contact points, bonus points. Use a **separate log for each band.**

(b) Summary sheet to show call sign, name and address in **BLOCK LETTERS** and **score for each band** by adding contact and bonus points for that band and **TOTAL SCORE** by adding scores together. Details of equipment used—transmitter, receiver, etc., and power.

11. Declaration to be attached to all logs: "I hereby certify that I have operated in accordance with the rules and spirit of the contest."

12. The right is reserved to disqualify any entrant who, during the contest, has not observed regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Executive Council of N.Z.A.R.T. will be final.

14. **Awards:** (a) **VK and ZL Stations:** Certificates will be awarded to the top scorer on each band and the top scorer in each VK and ZL district. The top scoring ZL on c.w. and also on phone will receive a suitable plaque. W.I.A. is responsible for trophy awards for VK Amateurs. There is NO overall winner for VK and ZL.

(b) **Overseas Stations:** Certificate to the top scorer in each scoring area. Additional certificates will be awarded depending on the number of logs received—e.g. to high scorers on different bands and place winners.

15. **Entries from VK and ZL stations** must reach N.Z.A.R.T. Contest Manager, ZL2GX, 86 Lytton Rd., Gisborne, New Zealand, before December 20, 1960. **From Overseas Stations** must reach N.Z.A.R.T., Box 489, Wellington, New Zealand, before January 20, 1961.

RECEIVING SECTION

1. The rules are the same as for the transmitting section but it is open to all members of any S.W.I. Society in the world. No transmitting station is permitted to enter this section.

2. The contest times and logging of stations on each band per week-end are as for the transmitting section.

3. To count for points, logs will take the same form as for the transmitting section but will omit the serial number received. Logs must show the call sign of the station heard (instead of worked), the number sent by it, and the call sign of the station being called. Scoring will be on the same basis as for transmitting stations. It is not sufficient to log a CQ.

4. VK receiving stations may log overseas stations and ZL stations, while ZL receiving stations may log overseas stations and VK stations.

5. Certificates will be awarded to the highest scorers on the same basis as for transmitting stations.

— . . . —

NATIONAL FIELD DAY CONTEST RESULTS

An error appeared in these results, published in "A.R." May '60. An award issued to VK5OR should have been made to VK5ZBL in Section D.

★

AMATEURS' PUBLICITY PLAN FOR QUEENSLAND

A plan by Townsville Radio Amateurs to publicise Queensland throughout the world has been forwarded by the Townsville and District Tourist Development Association to the Minister for Labour and Industry (Mr. K. J. Morris).

The Townsville Amateur Radio Club has suggested that the State Government or its Tourist Bureau make available to all Queensland Amateur Radio operators a supply of cards, known as QSL cards, bearing photographs and information of tourist attractions in the State of Queensland.

These cards are exchanged by Amateur Stations throughout the radio world, in all countries, as acknowledgments of radio contact.

They are already used to advertise other Australian States and countries behind the "iron curtain" make great use of their propaganda value when contacting the free world.

In a letter to Mr. Morris, the T.D.T. D.A. honorary secretary (Mr. L. Taylor) points out that, during 1959, 11,000 such cards were despatched from Queensland by the Amateur Radio Bureau in Brisbane, and many more were forwarded direct by stations.

Approximately half the card was available for advertising.

Mr. Taylor forwarded to Mr. Morris a suggested layout for cards, as supplied by the Townsville Amateur Radio Club.

—Reprinted from Townsville Newspaper.

CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

"COMPONENT PARTS"

Editor "A.R." Dear Sir,
I would like to suggest a section of "A.R." devoted to reviewing new components and sub-assemblies. On a recent visit to Melbourne I was amazed to see the variety of new resistors, condensers, plugs, sockets, etc., most of which I did not know existed. As a country ham I have a lot of my own components by mail and thus have to order from stocks that I know exist. This certainly limits my experiments and "progressiveness". I am sure that many country Hams in all States would appreciate reviews which describe the component as to size, characteristics and suggested use, and manufacturers' or retailers' part number.

A second suggestion is that "A.R." publish the Gentlemen's Agreements regarding the H.I. Amateur, in the form of a list of the W.I.A. Australian Amateurs should abide by. My third suggestion is that information be published regarding passes and available W.I.A. badges and certificates of membership. Also in each February issue a reminder that subscriptions are due and the amount of subscription in each Division.

Well that's the lot, quite a long "over", but I hope an interesting one.

M. N. O'Burtill, VK4OM.

Editor "A.R." Dear Sir,

During the past few months I have been acquiring information regarding various radio components, both here in Australia and from abroad. During this search I have unearthed some interesting information. I feel that there must be mountains of material that the average Amateur never sees or hear anything of, particularly as so much new material reaches the market each month. Even the Amateur who is in radio professionally does not see half of the new material available and those of us whose only use of radio is as a hobby certainly can't be aware of what is around him. Speak to him on the bands and you will soon see.

All this led to quite a lot of thinking and it naturally got around to "A.R.". This is our magazine for the Amateur and we do not have some service available for him to let him know what's new and where he can obtain it. Other magazines can so why can't ours.

This might be achieved as a private venture or official sanction might be given one person who could, by means of a circular letter, canvas the manufacturer and various trade houses for news of new releases, etc. Now this might work twofold. It might encourage those who don't already advertise in "A.R." to have second thoughts and bring to the notice of others our magazine. Though our circulation is restricted now, by the addition of these services and the trend at the moment to a bigger and better "A.R." circulation may expand and thus further encourage other advertisers in "A.R." to ours and to their benefit.

—Len Poynter, VK3ZGP.

GAZU BIRDCAVE AERIAL

Editor "A.R." Dear Sir,

I would like to bring to your attention many things which do not seem compatible with fact and theory, in the article by GAZU on the "Bird Cage" ("A.R." July '60). The article makes some positive statements and observations which do not seem to be correct, as follows:

1. "A V" dipole provides an increase in gain in the direction of the beam.
A "V" dipole with an angle of 90 degrees will have an approximate all round response and in some practical instances is used so as to avoid the nulls off the ends of the normal dipole.

2. "Such an arrangement, i.e. 'V' dipole when used with a reflector of similar construction, gives a gain in the direction of the beam and the front-to-back ratio greatly exceeds that which can be obtained with a normal two-element array."

In actual fact a "V" dipole beam will be at least 6 db. less efficient than a conventional beam. Fig. 1 shows the radiation from current flowing in a "V" dipole. It can be seen that the "V" dipole only radiates in the desired direction, i.e. 90 degrees, of its current, which is equivalent to a 6 db. loss.

3. "Due to the 'V' dipole effect, the power gain is 1 to 1½ db. better than a cubical quad."

It is in fact at least 6 db. worse than a cubical quad.

4. "Specific and close measurements are given for a 30 metre 'Bird Cage'."

These are not correct. The writer uses a cubical quad and it was found possible to distort the existing quad so as to have the physical configuration of a "Bird Cage".

(a) The resonant frequency of the configuration immediately jumped up to the vicinity of 16 megacycles.

(b) Notes were compared with a ZL3, a W6 and a W4 who all had the same experience and found that the 63 ft. long wavelength when placed in the "Bird Cage" configuration had to be lengthened to between 85 and 90 ft. for resonance on 14 Mc.

(c) "Bird Cages" are available commercially in the U.S.A. and all purchaser's contacted or heard of invariably find that the antenna is delivered complete with an assortment of loading coils.

In all cases in which the writer has knowledge I have not contacted GAZU the characteristics and results obtained are more in line with the writer's remarks than with the claims made in the "Bird Cage" article.

—C. B. Edmonds, VK3AE.

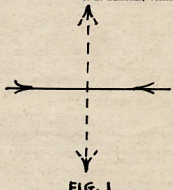


FIG. 1

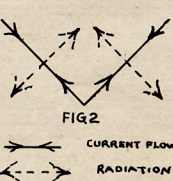


FIG. 2

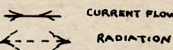


Fig. 1.—Radiation is at 90 degrees to the direction of current flow.

Fig. 2.—The radiation from the "V" dipole can be shown to be equivalent to a dipole radiating forward and a component radiating sideways. When the angle of "V" is 90 degrees these two components will be equal, i.e. 50 per cent. each.

RULES FOR ROSS HULL CONTEST

Editor "A.R." Dear Sir,
Having forwarded through my Division of the W.I.A. some comments on the proposed new rules for the 1960/61 Ross Hull Contest, I would be grateful for the opportunity to air my views in "A.R."

Briefly, although I favour some changes in the rules, I object strongly to some of the proposed changes:—
(1) Why delete the c.w. section? I think this is deplorable. Are the Z licensees forced to compete with full licensees under the present phone, open and c.w. log system? After all, the number of opportunities for using c.w.

in the Contest are few, but one of those contests which should yield a rare DX 6 metre station. Even more important, any chance of VK6 working 2 metre DX rests strongly on the use of c.w.

(2) Wasn't the allowing of Intra-State QSOs on 144 Mc. tried some five years ago and proved to be a failure? At present a VK6 has a chance of being heard by stations in the Contest owing to the geographic isolation of the State (my 317 hours of listening and operating last Contest yielded 804 points, over half of which were scored by working JA stations. There were only 16 openings into other Australian States on 30 Mc. during the Contest).

However, the comparatively few Amateur in this State makes the scoring from Intra-State 2 metre contacts poor. Interstate contacts at present are most unlikely as far as VK6 is concerned.

(3) While I agree that it is desirable to shorten the Contest, I don't agree that it should be limited to week-ends. My reasons? (a) Many enjoyable openings occur on week nights.

(b) Week-end activity is limited for many by sport or church activities and/or by families who object to a large portion of the summer week-end being spent on Ham Radio.

My personal opinion favours a period of one month from 20th December to 20th January, since this covers both the holiday season and also the period of greatest E activity on 6 mx.

Summing up then, I agree that some change in the duration of the Contest is desirable, but I object strongly to the inclusion of Intra-State 144 Mc. contacts, and I deplore the dropping of c.w. from the Contest.

—J. R. Elms, VK6BE.

AMATEUR TELEVISION

Editor "A.R." Dear Sir,

In the July issue of "A.R." there appeared a spirited article by VK3ABK/T to bring the subject of a.t.v. into the open.

I feel he is being unjust towards Hams in making their activities known. Apparently he has not read earlier issues of "A.R." in which myself (VK2AWW/T) and Bill Brownbill (VK3BU/T) have on several occasions called for any interested parties to put forward a view to co-ordinating standards, etc., at least in each State.

The net result of these appeals at my end (VK2) was nil with the exception of Rod Pryor (VK3CN/T) who has later contacted me on a business trip to Newcastle.

I would like to ask VK3ABK/T where he was on this occasion and if he is so interested in a.t.v. then why did he not contact us?

For over two years I have been actively interested in closed circuit t.v. which I feel is a forerunner to "on air" transmission and have met many people, Hams and non Hams all over VK3 interested in the subject. These people I also find are members of the British Amateur Television Club which has organised active groups in the United Kingdom.

When these parties are located on a map of Australia you will find that they are spread hundreds of miles apart and therefore 288 Mc. a.t.v. contact is impossible. This is a pity. I regard closed circuit work as an outlet for their interest. Therefore I feel that if any great co-ordination is to be done it must consist of Hams and non Hams and also articles published in "A.R." should include closed circuit activities. This requirement is sensible as not all concerned are interested in electronics as a hobby or are conversant enough with television techniques to start transmitting full scale pictures to C.C.I.R. standards.

Another point is that the financial position of many parties who have t.v. permits will not allow full scale projects as we all must admit that it costs money for t.v. equipment and the old junk does not help very much in this case.

As standards are concerned, I feel that Eric Cornelius (VK6EC/T) has put forth a good set, as in any case these standards are generally accepted studio techniques in Australia anyway. In that distributed composite video output level is 1.4v. peak.

I make a challenge now to VK3ABK/T that if he writes to me generally he will consider good practical a.t.v. standards, then I will answer with any agreements or otherwise I feel and I ask therefore that if any interested party reads this letter, including VK3CN, 3BU, EEC, etc., that they do the same.

You have brought up the question of a.t.v. standards and I now want to see you back up your arguments as I for one did not know you were active until your letter appeared in July.

—Dennis Wheaton, VK2AWW/T.

(Continued on Page 15)

FEEDBACK

The gentle crash of static fills the band and the only sound is the noise caused by the travel of the tuning knob. Silence, yet let a rare one appear and the band breaks into life. But is this using our bands? Because the use of a band implies that we are in contact with our fellow Amateurs. If, for example, your log was submitted to an outside examiner, would he consider you were really using the band if your log showed no actual contacts or CQ calls? It is very doubtful. As once said, "It is later, than you think," and unless you show by on-the-air contacts that our frequencies are being used, it could well be that someone will consider that our requirements are overstated. "Populate or perish" was once a catch phrase, but at this time it is a genuine slogan, for unless we do use our bands we may have no bands to use.

This is a definite demand to every Amateur to prove that we do use our frequencies, because in this instance an active majority can prove to a demanding minority that they are not correct. Never say you have not been warned; call CQ today and use your transmitter.

★

"My Old Man's a Dustman" is, today, a popular tune, but is there any need for the s.b. gang to distribute their garbage over such a wide frequency spectrum? And lest the a.m. boys greet this with pleasure, they too could well check their splatter which is becoming rather pronounced. A clean, well modulated signal, is the hallmark of a good station. Have you checked your splatter? Even your best friend may not tell you, "you splatter".

★

It seems a Division has a riddle: "Is a quorum a forum to be held with decorum, or a site for a fight on a meeting night?"

★

If a Reverend Gentleman answers a CQ could that be classed as parson to person contact?

★

Must have offended or upset the co-editors as they mispell a word in this column last month, but at least they did publish the uncensored thoughts. Suppose it is an unrewarding task reading the whole magazine looking for errors and, over all, such are very few. Wonder why they have to appeal for articles as on the air discussions indicate that many original and, as yet, unknown ideas are currently being used by Amateurs. Perhaps Hams are shy to print their ideas for fear they may be subject to criticism, but remember that many others were laughed at for their then silly ideas. Ever thought how you would describe to a resident of 1899 the idea of radio communication? Yet today we take it for granted.

★

Progress — Publicity — Public Relations, and most important — active use of our frequencies.

★

If you are going on a fox hunt (my spies advise me) it pays to stay clear of the constabulary.

SALES TAX CHANGE ON RADIO AND TELEVISION VALVES

A new method of taxing thermionic radio and television valves, to bring in an extra £300,000 revenue to the Commonwealth in a full year, was outlined by the Treasurer (Mr. Holt) in his budget speech, 17/8/60.

Referring to the changed method of taxing radio valves, Mr. Holt said: "At present, valves made in Australia are exempt from sales tax but are subject to excise duty of 2/9 each.

"Imported valves bear a similar levy embodied in the customs duty to which they are subject.

"It is proposed the excise duty, and that part of the customs duty which is equivalent to the excise duty, shall be superseded by a sales tax of 25 per cent. This is the rate of sales tax which is payable on wireless receiving sets.

"An exception will be made for certain valves of a kind which are used only in transmission. These valves will be subject to sales tax at the general rate of 12½ per cent."

GOODS ON WHICH SALES TAX EXEMPTION IS WITHDRAWN

Thermionic valves of a kind used in apparatus for radio or television transmission or reception, but not including:

(a) Cathode ray tubes;

(b) Rectifying valves in respect of which the product of the peak inverse voltage rating and the peak plate current rating exceeds 10,000; or

(c) Other valves in respect of which the rating for plate dissipation under Class "C" Telephony continuous carrier wave conditions exceeds 25 watts.

Note: Wireless valves specified above have hitherto been exempt from sales tax, but subject to customs duty or excise duty. The excise duty on these valves has been abolished and the customs duty has been reduced by an equivalent amount per valve. These valves are now subject to 25 per cent sales tax with the exception of:

(i) Cathode ray tubes which remain exempt from sales tax and subject to customs duty and excise duty; and

(ii) The valves excluded by paragraphs (b) and (c) above, which are now subject to 12½ per cent. (These are the larger and more expensive valves which are used in transmission.)

Tax at the rate of 25 per cent. is now payable on the full sale value of wireless receiving sets, without any exclusion of the value of the valves incorporated therein. The value of cathode ray tubes will, however, be deducted from the taxable sale value of T.V. sets.

Where valves have been entered for home consumption prior to August 17, 1960, and have thus borne excise duty or the full amount of customs duty then payable, a taxpayer who subsequently becomes liable to pay sales tax on those valves, or on goods such as wireless or television receiving sets which include those valves, will be entitled to a rebate of sales tax equal to the amount of excise duty, or an equivalent amount of the customs duty, paid on those valves.

CORRESPONDENCE

(Continued from Page 14)

Editor "A.R.," Dear Sir,

Ham T.V. equipment at this QTH consists of a waveform generator and camera unit, based on a complete system published in "QST" 1940. This has been modified to improve video response, and line speed altered to suit our 625 line standard.

The waveform generator produces synchronising and blanking pulses, which are inserted at the end of the video chain to give a composite T.V. signal.

The camera is built around a type 3527 iconoscope tube with a four-stage video amp. and 6LS cathode follower modulator, lifting the voltage output to about 30 peak.

This is suitable for grid or screen modulating a 6QK6/40 to give a negatively modulated signal on our 288 Mc. Amateur band.

The transmitted signal can be received on the 1 metre band by using a converter feeding into Channel 1 of a standard V.L. set.

Persons interested should contact the writer: Geoff Hughes, 2 McMillan St., Elsternwick, or on 6 or 2 metres.

—Geoff Hughes, VK3AUX.

"A.R." will be pleased to commence a new column or a.v. if warranted and a volunteer sub-editor located.—Ed.]

JASAUG REQUESTS CONTACTS

Editor "A.R.," Dear Sir,

I have an enquiry from a Japanese Ham Radio Operator living in Kyushu (the southern part of Japan) who wishes to communicate with Australian Hams and to become friendly with each other through their common hobby. I would be most obliged if you will kindly suggest to me the name of any person or organisation who would be willing to be approached on the matter.

Particulars from the applicant are as follows: Call sign, JASAUG; metre band to be applied, 20 or 6 metres; time suitable, 1400 in Eastern Standard Time (or 1500 in Japanese Standard Time).

—H. Mizmoto (Melbourne Representative of I.I.N.O. Lines, 543 Little Collins St., Melbourne).

FOUR IN ONE

The following countries (DX states) have four or less licensed Amateurs: CE0, CR3, CR9, CT2, FG7, FUS, MP4, OH0, PJ2M, TI9, VP5, VP8, VQ6, VS4, YJ, ZDT and ZST.

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W.I.A. FEDERAL PRESIDENT'S REPORT, 1959-60

Gentlemen:

I am pleased to make this annual report to Federal Council and Members for the year ending 31st December 1959.

Due to the urgency and importance of the work in connection with the Administrative Radio Conference of the International Telecommunications Union, much of the normal work of the Executive of necessity fell somewhat behind. This was further effected by the resignation of Mr. Douglas Bowie, VK3DU, Federal Secretary, and the Doctor's instructions after undergoing a serious operation. I have, therefore, carried on the duties of Federal Executive in addition to the I.T.U. activities whilst the Doctor has been Mr. Mitchell, VK3UM, who acted in the capacity of Assistant Federal Secretary and Federal Business Manager.

During the year the Federal Treasurer, Mr. C. Ewin, VK3AGC, also found it necessary to resign but fortunately Mr. Bob Boase, VK3JN, was able to take over the post of Federal Treasurer and has been doing an excellent job as shown by the Federal Executive's financial statements issued with the minutes of each Federal Executive meeting.

During the year Mr. H. Rankin, VK3GV, was appointed to the Executive as Federal V.h.f. Officer, an appointment which was most satisfactory since the quite large increase in Z call licences made an increase in the number of V.h.f. operators represent the problems of these licences at Federal level.

In accordance with my desire to re-organise the work of the Executive, Mr. Strenghair, VK3JZT, was appointed to the Executive as Projects Officer and will be responsible to undertake the work of obtaining estimates of costs in carrying out Federal Council directives to produce such items as certificates, log sheets, message forms, etc.

W.I.A. DELEGATE TO I.T.U.

You are aware, of course, that after I reported to you at the Easter Convention, 1959, John Moyle, VK3JU, was appointed an ex officio delegate to the I.T.U. Conference prior to departing for Geneva as the W.I.A. officially accredited Representative with the Australian delegation and to attend the Delegations' meetings held in Melbourne.

During the three months he was away, I kept in close contact with him by letter and cablegram. I was able to make and release him on operation in connection with the time when the subject matter was not advised to me as sub judice in nature; these were subsequently reported in the Institute's journal "Amateur Radio".

Little did any of us think when we saw him off by Qantas aircraft at Essendon Airport in Melbourne that he would be coming back to undergo a major operation for cancer of the prostate which he was never to recover. I was aware of his condition, but at John's request, I did not convey details to Federal Council and Members at the time.

His work at Geneva on behalf of the Australian Amateur Service will be forever remembered. His premature passing from the ranks of Australian radio has left a gap in the one, perhaps more so for myself and members of the Executive who were so closely associated with him during the months of preparatory work prior to his departure.

It was with deep and sincere sadness that I wrote the page on his life which was published in the April issue of "Amateur Radio". His ability whilst at Geneva on our behalf brought forth the praises of all Amateur Societies and many individual members from delegations to the Conference with whom John associated himself.

On behalf of Federal Executive, Federal Council and members of the Institute, I arranged for a wreath to be laid on his coffin. Mrs. Moyle has been asked to receive it.

"Would you kindly convey to Federal Executive and the Federal Council of the Institute my sincere thanks for kind messages and expressions of sympathy in our recent bereavement."

"In this time of sadness it has given me much comfort to know of the high esteem in which John's contribution to the W.I.A. are held, for, as you may well know, the Amateur cause was always very close to his heart."

Despite ill health and the knowledge that he could not expect to live many weeks, he wrote his final report on the Geneva Conference and this was also published in "Amateur Radio".

You are all no doubt aware of the outcome of this Conference as it affects Amateur band assignments in the United Kingdom. As we are to have further reductions made in our already-reduced bands if the Final Acts of the Geneva Conference are ratified by the Australian Government, it is evident that Amateurs, activated by the highest ideals in defence of our great cause, have taken individual action to try and speed the ratification of the Acts in their present form, and to have changes made in respect of the proposed frequency reductions.

Because some of the statements being made were not strictly accurate and because such mis-statements might ultimately prove an embarrassment to both the W.I.A. and the Honorable Members of the House of Parliament who are prepared to defend our case, I deemed it wise to call an Extraordinary Meeting of the Federal Council in order that any policy to further defend our bands by Political assistance would be at the direction of the Federal Council with the full knowledge of the true facts in relation to the proposed frequency curtailments.

The Federal Council met in Melbourne on Easter Saturday and after a full appraisal of the true facts it has further been resolved that the assistance of Honorable Members will be sought in an effort to have the Postmaster-General's Department informed at the last year that if the majority of countries were in favour of maintaining the status quo on Amateur band assignments, the Australians would make no special arrangements.

By a vote of five to one, Federal Council was in favour of covering the cost of the Extraordinary Meeting from the balance of A.M.L.P. Funds which currently stands at approximately £500. Although one Division did not agree with this resolution, I am of the opinion that it was a reasonable decision. If you recall the details of the Executive's original plan, the late John Moyle was to visit each Division after his return from Geneva, and the Federal Council was to have been from Sydney each time and accommodation expenses would have been additional thereto, the sum expended would have been far in excess of the cost of the aforementioned meeting. Since the said meeting was for the express purpose of making decisions with regard to the proposed changes, result in favour of the Amateur Service, I feel that the money has been spent wisely in favour of the effort which the late John Moyle initiated.

In conclusion of this section of my report, I would like to take the opportunity of thanking all the Honorable Members of the House of Representatives and Senators who last year rose in defence of the Australian Amateur. I feel very strongly that if we did not have a legitimate case, we could not have expected this support; the fact that we gained such recognition is proof in itself that our case was worthy of attention.

CONTESTS AND AWARDS

After the Federal Convention in 1959 the South Australian Division handed over the duties of the National Field Day Contest to the Tasmanian Division. The VK5 boys did a sterling job during the two years in which they conducted the Federal Contests. From my experience, I can fully assure you that the detailed work involved in the organisation of our contests and it is to the credit of the South Australian Division that they have done so in co-ordination and co-operation was attained.

In taking over the duties the Tasmanian Division have shown that they are equally as capable and it has been most gratifying to see the results of their work so far.

Taking it all round, the participation in most of the contests this year has increased, particularly in the National Field Day Contest, which is the result of the increased interest and support. Perhaps with the advent of quite high power capabilities from transistors we might look forward to even greater interest in the contests in the future as our out-of-doors contest. Because of the late John Moyle's great national outlook on Amateur Radio it has been suggested that in the form of a perpetual trophy be attached to this contest. Suggestions for a memorial to John's memory will be forwarded to the Executive in due course. You will all be aware of the work done on in the year. I would like to think, however, that should such a memorial be associated with the National Field Day Contest, the participation should never be allowed to flag. The Remembrance Day Contest was again a great success and was opened this year by His Excellency, Colonel Sir Henry Abel Smith,

K.C.B.O., D.S.O., Governor of Queensland. Since the original idea, some three years ago, of holding the results portion of "Radio Radio" Contest, this has been maintained and I would like to see it continue in the future years. I am informed that the Federal Contest Committee, under the leadership of the Tasmanian Governor will open the 1960 Contest.

The VK-ZL Contest was again a success as evidenced by the number of overseas logs of stations in the results portion of "Radio Radio". This year the honors of running the contest are with the N.Z.A.R.T. and I trust all Australian Amateurs who are able to, will be able to assist and support our sister Society in New Zealand.

The Ross Hull V.h.f. Memorial Contest was reasonably successful, but there appears to be some dissension among the v.h.f. boys concerning the period and duration of the contest. Some comments have been forwarded to the Federal Contest Committee and I would be pleased if the Council would give their attention to any variations which the committee might submit in the future for variations in the rules to provide greater interest.

Draft V.h.f. Centenary Awards rules were circulated to Federal Council during the year from which a large number of constructive ideas were returned to the Executive. These were considered by the Council and a second draft of the rules which I trust this time will be to the satisfaction of all so that the V.h.f. Awards can be implemented without further delay.

Those members in your Divisions who have submitted claims for the Australian DXCC Award will have been received with interest as yet, the reason being that the supply has been exhausted. Because the Executive received so many complaints about the quality of the certificates, it was decided not to print any more of the old ones but to produce a new certificate. To this end designs were called for in the columns of the magazine for which a fee of £5/5/0 was offered for the one selected. The response was not very great but from those submitted the Executive chose the design which I think is the best. The holder of a many quite rare certificates from all over the world.

The preliminary art work has been completed and I can say that the certificate is a marked improvement on our old one and may well be a very fine artistic certificate. Quotations are currently being obtained for the final art work and the printing of the certificates which, incidentally, will be printed on a very fine quality paper which the Executive imported from the Goes Company in America some few years ago.

Members will probably wonder what the position still is for those who already hold a certificate. It is proposed that holders of certificates will be asked to forward their old certificate back and a new one will be issued carrying the same data as the other certificate.

I would like to record here that Mr. Brown, upon being advised that his design had been selected, requested that the £5/5/0 be donated to the V.I.P. Club. This is a most commendable and most praiseworthy and indicative of the real Amateur spirit.

It is with regret that I have to inform you that after five years in the office of Postmaster-Awards Manager, Mr. Gordon Weynton, VK3XU, has had to resign his post due to ill health. He has carried out his duties with great carrying on this duty in the manner he desires. I would like to say how much we have appreciated Gordon's co-operation over the years and how much we require quite painstaking care as to detail.

Effective as from May, 1960, Mr. Alfred Kiskick, VK3KB, will take over the duties of Awards Manager and I trust that all members will give to Mr. Kiskick the same attention to correct methods when submitting their cards for checking as they have done in the past. It is a task which requires great attention to the task of looking after the Awards work of the Executive.

INTERFERENCE

A considerable number of reports from a large area of the Commonwealth has been received in the results portion of the Government station VK53 which is frequently heard inside the lower end of the 7 Mc. band. The reports are currently being correlated by Mr. David Rankin and I trust that when completed it will be submitted to the Postmaster-General's Department. From a cursory glance at these reports it would appear that

the problem is intermittent and that when in existence is due to faulty tuning of the transmitter.

In the future we desire to take much sterner action on interference problems registered within the Amateur band assignments than have been taken in the past. The Geneva Conference has shown that we have exclusive assignments and I consider that it is an urgent matter in the future to carry out a policy of interference through the correct official channels. There are, of course, a number of countries who are not signatory to international Conferences and these might be a problem. Nevertheless, I would suggest that each Division set up interference committees for the express purpose of accurately monitoring the Amateur bands and to report to the Executive who will take such cases up with the correct authorities. I am sure that we can we hope to keep usable our assignments which are gradually being encroached upon.

On the 23rd December, 1959, Bill Mitchell, Dave Rankin and myself sought council with the Central Administration of the Postmaster-General's Department in respect to television interference and the Amateurs' position in relation to it. Mr. George Scott, Acting Controller, and Mr. Charlie Campbell, Chief of the Central Office, gave us a most intelligent hearing.

Although the t.v. problem is largely a matter of public relations there have been, nevertheless, a number of cases where the co-operation of the viewer has not been forthcoming. The Executive suggested the formation of a T.V. Committee composed of representatives from the P.M.G., T.V. Receiver Manufacturers, T.V. Servicemen, the W.I.A. and other frequency users whose transmitters can, and do, cause interference to t.v. viewers.

After a two-hour discussion with many aspects of t.v., the Department advised that it would fully investigate the Institute's requirements, particularly regarding its regulations. The Postmaster-General's Department include protective clauses in the Regulations Handbook covering the lines adopted by the British Post Office whereby Amateurs have protection in cases where the interference to a television receiver is due to insufficient receiver front-end selectivity, faulty adjustment of a television receiver, lack of co-operation by the owner of a television receiver subjected to interference and so on.

In the absence of the Controller of Radio, who was abroad at the time with the Australian Delegation to the Geneva Conference, the interest by the Officers concerned was not lost. A number of telephone calls were made to my office at work after the meeting seeking confirmation of further facts. The problem which has been discussed only to indicate an early result to our representations, the main thing being that a move has been made in the right direction.

Meanwhile checkouts with the Radio Inspector and the Australian Broadcasting Control Board has indicated that the number of cases of t.v. by Amateur Stations is very definitely in the minority. Just the same, we must, of the matter our attention, particularly with new t.v. services coming into operation in other States and later on in country areas.

T.V. Committees have been formed in the VKX, VKA, VKS and VKT Divisions and I am informed that they are doing excellent work, particularly in the field with assistance to members who are experiencing t.v. This is a real service which the W.I.A. can give not only to Amateurs but also to the public experiencing the interference, thus affording a public relation which must be to the credit of our Institute and the Australian Amateur Service generally.

PAPUA-NEW GUINEA DIVISION

It is with regret that I received notification of recent date that the Papua-New Guinea Division of the W.I.A. has found it necessary to wind up its affairs due to lack of interest and insufficient members.

I have written to the Division some weeks ago in the hope that I could persuade them to carry on, even if with difficulty, because I am confident that New Guinea has a big future and the Division of the Institute could grow with it. This is born out by the expansion of population and private enterprise since the war and a land rich with many vital world requirements.

However, this was to no avail, and a special meeting was called at which a vote was taken resulting in the majority for the closing down of the Division. Oddly enough, the Executive has found that the Federal Constitution has no provision for the disbanding of a Division so that matter is receiving current attention.

FEDERAL STATION VKSWIA

I made a promise to Federal Council last year that the Federal Station, VKSWIA, would be on the air by the time the late John Doyle left for Geneva and that regular news bulletins would be transmitted for the general information of members. Due to circumstances beyond my control this did not come about, but I am hopeful that it will be on the air some time later in the year when a new home will be completed for it.

I have been well aware that the Federal Council has not received all the information it is entitled to and I am therefore looking forward to a re-arrangement of my own domestic affairs by which more convenience will be available for the dissemination of the affairs of the Institute. These things take time and money to eventuate, so I trust you will bear with me until this re-arrangement is completed.

AUSTRALIAN AMATEUR CALL BOOK

Last year saw the sixth edition of the Australian Amateur Call Book and the first edition in the second five-year copyright granted to the W.I.A. by the P.M.G. Department.

The same high standard has attained with this publication and my personal thanks are extended to the Publications Committee who have done a sterling job whilst also producing "Amateur Radio" each month up to its usual high standard.

WANTED!

ARTICLES

Can you write an article for "Amateur Radio"? How about one for Hints and Kinks?

WIRELESS INSTITUTE OF AUSTRALIA—FEDERAL EXECUTIVE

BALANCE SHEET AS AT 29th FEBRUARY, 1960			
Current Liabilities—			
Creditors	£19	14	10
Constitution Fund	13	11	10
Trust Fund	5	5	0
I.T.U. Fund	521	15	0
		£587	6 8
Accumulated Funds—			
Balance, 1st March, 1959	£587	3	7
Less, Excess of expenditure over income for year ended 29/2/60	52	13	9
	£34	9 10	
	£1191	16 8	
Current Assets—			
Cash on hand	£8	0	0
Commonwealth Savings Bank (Society A/c.)	973	3	7
Debtors	13	11	1
Stocks on hand	50	0	0
		£1044	14 0
Fixed Assets—			
(at cost less depreciation)			
Filing Cabinet	£27	0	0
Stationery Cabinet	13	10	0
Typewriter (No. 1)	17	0	0
Typewriter (No. 2)	27	0	0
Trophy, Rose Hull	19	12	0
Trophy, R.D.	3	10	0
Equipment, VK3WIA	39	10	0
		£147	11 0
	£1191	16 8	

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 29th FEBRUARY, 1960

EXPENDITURE		INCOME	
Audit Fees	£8	8	0
Loss on Sale of Badges, Log Sheets	13		3
Depreciation	30	13	0
Federal Contest Committee Expenses	5	0	0
QST Bureau Expenses	13	0	0
DXCC Expenses	3	7	3
Postage and Telephone	24	19	5
Printing and Stationery	8	5	5
Insurance	7	12	7
Licence, VK3WIA	1	10	0
Secretarial Assistance	6	0	0
	£109	8 6	
		£9 6 2	
		Sale of Surplus Equipment	
		Bank Interest	
		Deficit to Accumulated Fund	
		£32	
		£109	

We have examined the books and vouchers of the Wireless Institute of Australia (Federal Executive). In our opinion, the above Balance Sheet is properly drawn up so as to show a true and fair view of the state of the Federal Executive's affairs as at 29th February, 1960, and that the attached Income and Expenditure Account is properly drawn up so as to show a true and fair view of the results for the year ended 29th February, 1960. Stock on hand at 29th February, 1960, has been accepted on the Certificate of the Treasurer.

DAVID FELL & CO., Chartered Accountants (Aust.)

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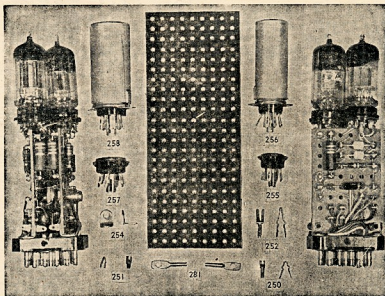
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Amateur Radio, September, 1960

Maurice Cox, WA-13055

Flat 1, 37 Boyd Crescent,
Olympic Village, Heidelberg,
N.33, Victoria.

Hi, gang. It's me again, your scribe. How's listening these days? Any reports on band conditions and what you have heard? If so, let me have details with you for inclusion in this page. Also, would like a photo of yourself and rig, x'ers, tuners (if any), and aerial systems, etc., with full description. Make sure it's a good photo, otherwise it won't reprint very well. Another thing I would like which would be of interest, and that is an editorial from you other State Secretaries, and maybe later I'll invite one from each member. So, who'll be first? I want one before the 20th September.

Country boys, how about writing me a line on two for this page as you seem to be left out of things. Is there any way we can help in any matter? I'll let you into a secret—this Division may hold an S.W.L. Convention at Shepparton soon. What's your feelings about this, you country lads? Drop me a line, will you?

There are 90 listeners' numbers issued in VK3 land, 30 have gone to Amateur ranks, leaving 60: about 50% are country, where's the rest, eh? What about coming to the meetings, chaps, as you are all missing a lot of fun.

The office-bearers have some colossal ideas that will be brought about very shortly, so be in it with us, attend our monthly meetings on the last Friday of each month.

CORRESPONDENCE

I wish to acknowledge correspondence from L3042, L3074, L3083, L3084, L3085, L3086, L3087, L3088, L3089, L3090, L3091, L3092, L3093, L3094, L3095, L3096, L3097, L3098, L3099, L3100, L3101, L3102, L3103, L3104, L3105, L3106, L3107, L3108, L3109, L3110, L3111, L3112, L3113, L3114, L3115, L3116, L3117, L3118, L3119, L3120, L3121, L3122, L3123, L3124, L3125, L3126, L3127, L3128, L3129, L3130, L3131, L3132, L3133, L3134, L3135, L3136, L3137, L3138, L3139, L3140, L3141, L3142, L3143, L3144, L3145, L3146, L3147, L3148, L3149, L3150, L3151, L3152, L3153, L3154, L3155, L3156, L3157, L3158, L3159, L3160, L3161, L3162, L3163, L3164, L3165, L3166, L3167, L3168, L3169, L3170, L3171, L3172, L3173, L3174, L3175, L3176, L3177, L3178, L3179, L3180, L3181, L3182, L3183, L3184, L3185, L3186, L3187, L3188, L3189, L3190, L3191, L3192, L3193, L3194, L3195, L3196, L3197, L3198, L3199, L3200, L3201, L3202, L3203, L3204, L3205, L3206, L3207, L3208, L3209, L3210, L3211, L3212, L3213, L3214, L3215, L3216, L3217, 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FEDERAL

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South Australia—L. H. Duncan, VK5AX.
Western Australia—Ron Hugo, VK5AW.
Tasmania—E. J. Bruijse, VK7EJ.
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271, 9 Comfort Ave., Cessnock; Western: W.
Sutt, VK2WH, "Cambijawa", Forbes; South
Coast & Southern: E. Fisher, VK2DY, 2 Oxide
St., Warrawong; Sub. Western: J. W. S. Edge,
VK2JAO, Wallace St., Coolamon.

FEDERAL

P.M.G. AD HOC COMMITTEE SITTING

The initial meeting of the Ad Hoc Committee
formed by the P.M.G. to consider the
O.B.E., was held in Melbourne on Wednesday,
10th August.

The Australian Government decided to estab-
lish this special committee to review the radio
frequency allocations. The Department of
Post and Communications, Geneva, 1959.

The membership of the committee is as
follows:—

- Professor: L. G. H. Huxley, Chairman of the
Radio Research Board of Australia, and
recently appointed Vice-Chancellor of the
Australian National University.
Mr. B. B. Blair, a member of the Australian
Broadcasting Control Board.
Mr. A. Tinkler, of Burwood, Victoria, licensee
of Amateur Station VK3ZY, representing
the Australian Amateur Service (nominated
by the Wireless Institute of Australia).
Mr. W. W. Henner, Chief of the Research
Laboratory, Amalgamated Wireless (A/asia)
Ltd., Sydney, representing the Radio
Manufacturing Industry (nominated by
the Electronics Association of Australia, a
division of the Chamber of Manufactures
(N.S.W.)).
Mr. J. H. Williams, Royal Melbourne Technical
College and Mr. D. G. Wyles, of Moesman,
N.S.W., representing the interests of
public utilities and commercial organisa-
tions operating licensed Radio Services
(nominated by the Institute of Radio
Engineers (Aust.)).
Mr. H. White, Acting Director, Airways En-
gineering, of the Department of Civil
Aviation.
Group Captain J. W. Redford, O.B.E., Chair-
man of the Joint Communications Com-
mittee (Department of Defence).
Mr. E. J. Stewart, Supervising Engineer (Sys-
tems Planning), Engineering Division,
Post Office Headquarters, Melbourne, and
leader of the Australian Delegation to
the Administrative Radio Conference in
Geneva, 1959.
Mr. H. W. Brett, Supervising Engineer (Radio),
Engineering Division, Post Office Head-
quarters, Melbourne.

Broadly, the terms of reference of the com-
mittee call for a review, in the light of pre-
sent usage of frequencies in the Commonwealth,
of the application of the proposed table of
frequency allocations which emerged from the
Administrative Radio Conference held at Gene-
va in 1959.

The committee will examine particularly any
matters relating to radio frequencies that may



VICTORIA

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Secretary: M. J. Owen, VK3ZEO.
Administrative Secretary: Miss Foster, 478 Vic-
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water, via Port Fairy; Far North Western:
M. Folie, VK3CZ, 101 Lemon Ave., Mildura;
Midlands: R. Jonasson, VK3IND, Farnsworth
St., Castlemaine; North Eastern: T. K. Ten-
nant, Park St., Tatura; Eastern: J. F. Ryan,
VK3ZBB, and E. D. Volgh, VK3ZGV.

QUEENSLAND

President: W. J. Rafter, VK4PR.
Secretary: S. J. Armstrong, VK4SA, Box 638J,
G.P.O., Brisbane.
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the State Service Union Rooms, Elizabeth
Street, Brisbane.
Divisional Sub-Editor: W. J. Rafter, VK4PR,
Willandra St., Alderley, Brisbane.

arise from reports to the Postmaster-General
by the Australian Broadcasting Control Board
regarding Broadcast and Television Services.
It will study the manner in which any further
distribution of available radio frequencies may
be made in the overall national interest. The
committee will report to the Government at the
conclusion of its investigations.

The services of Mr. Arthur Tinkler, VK3ZV,
as representative from the Wireless Institute
of Australia, have generously been made
available by the principals of his Company,
R. H. Cunningham Pty. Ltd., for the protracted
periods over which the committee will be
carrying out its investigations.

1,700,000 TRANSMITTERS

Radio transmitters in the United States of
America, according to a year-end report by
the Federal Communications Commission, in
categories other than broadcasting, now out-
number broadcast transmitters in use by 155
to 1.

In marking its 25th year of operation, F.C.C.
points out the increasing complexity of non
broadcast services dealing with production of
life and property as well as those used for
business and personal communications.

Latest count of users showed a total of over
570,000 licenses, using more than 1,700,000
transmitters, plus almost 2 million authorisa-
tions for operators.

In addition to broadcast facilities, there are
now more than 50 categories of radio services.
—CQ, 7 June 1960.

FEDERAL QSL BUREAU

The Federal QSL Bureau Manager is holding
cards for the following VK QSL calls for 1960
contacts: AM, AN, JB, KJ, LR, RL, SM. Any
reader who can help these contacts leave the
Bureau, is asked to contact the undersigned
with details.

As from May 1, 1960, new rules were intro-
duced by the Award Hunters Club certifi-
cate which is available to an applicant who
can satisfy the "A.H.C." committee (located
in Finland) that he/she already holds 25

SILENT KEY

It is with deep regret that we
record the passing of:—

Alf Males, VK7 Adelaide.

QSL Bureau: Jack Piles, VK4JF, Vanda St.,
Buranda.

Zone Correspondents: Maryborough: R. J.
Glassop, VK4BG, 30 North St., Maryborough;
Tonnerville: R. K. Wilson, VK4RW, Hogan
St., Stuart, Townsville.

SOUTH AUSTRALIA

President: L. H. Price, VK5OK.
Secretary: J. C. Haseldine, VK5AC, Box 1234K,
G.P.O., Adelaide. Telephone: M 7351.
Meeting Night: Second Tuesday of each month
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Flinders and Pulteney Streets.
Divisional Sub-Editor: W. W. Parsons, VK5PS,
10 Victoria Ave., Rose Park, S.A.
QSL Bureau: G. Laxton, VK5XK, 37 Belair Rd.,
West Mitcham, S.A. (Inwards & Outwards).

WESTERN AUSTRALIA

President: Cole Sangster, VK6CS.
Secretary: L. S. Eddington, VK6LS, Box N1002,
G.P.O., Perth, W.A.
Meeting Night: Third Tuesday of month at
Menda Street Hall, South Perth.
Divisional Sub-Editor: P. Haywood, VK6PH, 2
Barnsley St., Queen's Park, W.A.
QSL Bureau: R. Sumble, VK6RU, Box F318,
G.P.O., Perth, W.A. (Inwards and Outwards).

TASMANIA

President: T. Allen, VK7AL.
Secretary: K. E. Millin, VK7KA, Box 851J,
G.P.O., Hobart.
Meeting Night: First Wednesday of each month
at W.I.A. Clubroom, 147 Liverpool St., Hobart.
Divisional Sub-Editor: I. Nichols, VK7ZZ, 9
G.P.O., Hobart.
QSL Bureau: J. Batchler, VK7JB, 39 Willow-
dene Ave., Lower Sandy Bay, Hobart.
Zone Correspondent: North Western Zone—Ray
Waldon.

different Amateur Radio Certificates. Further
details on application to undersigned.

During the next six months, while Ray VK-
7BZ and XYL are overseas, this "stand-in"
will do his best to give all concerned an
equivalent, efficient "inwards" QSL service as
that so long given by Ray.
—Eric Trebilcock (BERS196), Acting Manager.

FEDERAL AWARDS

W.I.A. OFFICIAL LIST OF COUNTRIES FOR DXCC PURPOSES

The following further additions and amend-
ments are announced to the list of countries
published in A.R., January '60:

New Countries—Add to List

- Auckland and Campbell Is. (ZLA)—approx.
600 miles south of N.Z.
- Marcus Island (KG6)—approx. 1,500 miles
south-east of Japan.
- Mail Federation—formerly part of Fr. West
Africa known as Senegal and Fr. Sudan; for
contacts 20/6/60 or later.
- Madagascar—formerly part of Fr. West Africa;
for contacts 20/6/60 or later.
- Ruanda-Urundi Trust Territory (9US)—form-
ally grouped with Belgian Congo; for con-
tacts 1/7/60 or later.
- Somalia Republic (601, 602)—note letter "O"
in prefix—formerly Italian and British Somal-
iland; for contacts 1/7/60 or later.

Delete from List

- British and Italian Somaliland (VQ6 and 13)
as of 30/5/60.
- Karelo-Finnish Republic (UNI) as of 30/6/60,
thereafter such contacts will be considered the
same as those in the rest of the European
Russian S.F.S.R.
- Tangier (CN2) as of 30/6/60, thereafter such
contacts will count as Morocco (CN3, CN9).
- Wangai Island (UAF) as of 1/8/60.

Re-Insert in List—Previously Omitted

- EP, EQ—Iran.
- PK1, 2, 3—Java; PK4—Sumatra; PK5—
Borneo; PK6—Celebes and Molucca Islands.
- CE9, CA9, LU-Z, VK0—add to prefixes shown
for Antarctica.
- VPS—Cayman Islands,
Cambodia.

Alterations to List

- FB—Madagascar now known as Malagasy.
- OQ5—Belgian Congo, now known as
Congo Rep.
- ZG1—Congo, shown as Rep. of Guinea.
- UR9—Turkmenia, shown as UR18.
- TC3—Christmas Is., now VK9.
- A. Kiasick, VK3KB, Awards Manager.

HUNTER BRANCH

The September general meeting will be at the University, Tighs Hill, as usual, on the

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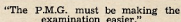
will be held on

will be held on

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PROGRAMME:

Sunday, 2nd Oct., Blackalls Park
 10-10.45 a.m., 144 Mc. Hidden Tx Hunt.
 11 a.m., W.I.A. Broadcast. 11.45-12.30
 p.m., 7 Mc. Tx Hunt. 12.30-1.30 p.m.,
 Lunch. 1.30-2.30 p.m., 7 Mc. Scramble
 (no a.c.). 3-3.45 p.m., 144 Mc. Hidden
 Tx Hunt. 4 p.m., Disposals Snle. 4.30
 p.m., Prizegiving, Farewells. Competi-
 tions and Lucky Numbers. Boiling water
 available free.



VICTORIA

VIEW POINT

The complete radio operator is a dying race. By that I mean one who can design, build, operate and service equipment. Assuming this premise to be correct, it is amazing how few of us are fortunate, in these days of specialisation to be capable of doing all these things reasonably well; perhaps not by specialist standards, but sufficiently well to impress a great many hiring institutions. How many chaps owe their positions in the business-technical world to

SOUTH WESTERN ZONE

turned to tune the rig again. Danny and s.s.b. are getting a little more attention these days. New York City has a new radio club, with a vast array of push buttons, pull buttons, etc., which seem to be necessary to translate this form of transmission into accent-free English. Danny 3ADJ also. This one is a little better than the others, which is good. Danny's previous rx's, is ten times better than any one of ours. So he says, anyway. He has a s.s.b. tx under construction, too. S.s.b. too for Tim 3TW. Tim has left the DX bands for a while, and is now working on a new product detector in the H.R.O. has cheered him up immensely. Those things apparently work! 3AKN has been dabbling with d.s.b. but at time of writing is mobile in VK2 and making

**W.I.A. N.S.W. DIVISION
SOUTH WESTERN ZONE**

EIGHTH ANNUAL

CONVENTION at WAGGA WAGGA

031

1st and 2nd OCTOBER, 1960

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Location: Postal Institute Hall,
Station Place, Wagga.

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A good programme of events is being drawn up, including a Scramble on 2 and 5-6 metres. Good prizes for all events. Also good prizes will be awarded to the home station with the most contacts with those at the Convention.

BOOK ACCOMMODATION EARLY
with J. Hutchison, VK2ZHJ, 18 North-
cote Pde., Wagga. Phone: Wagga 8330.

s.s.b. idea and John 3AMC is the latest one to show interest. Thorb has news of Jan 3BV who is beyond the a.c. lines, but has an arrangement for his new 7TH.

There are quite a number of us in the Hamilton area now and it has been suggested several times that we get together some evening. How about a meeting in September when Jamie 3MC and Pat 3ADN were putting a nice signal into VK2 on to my whip the other night.

The W.I.C.E.N. is a new thing on the air under the eye of Jim 3ABT. These practices are scheduled for each month on Thursdays and fourth Saturdays at 2000 hrs. on or about 3500 Kc. All welcome who are able to take part whether or not members of the Institute. Jim is hatching a new tx to end all tx's. Brian 3XV has now abolished the grass supports for his antenna in favour of tall timber. The signal was 1b. in the middle of Kalamoon on the whip but, alas, it seemed to be one way traffic. Well now there seems to be very little from the DX bands or from the v.h.f. either, so please, you who frequent those foursome places, come up to a civilised one sometimes and give the gen. Cheerio chaps, don't forget to give John or Lin the dope if you would be in the Jambores-on-the-Air. Give it soon so the Scout Magazine can publish it—3AKN.

EASTERN ZONE

Firstly, I must apologise for the absence of notes from the last issue. Your Correspondents, 3ZBR and 3ZGV, were actively engaged in Morse practice in our spare evenings and were unable to put in the necessary time to compile notes. However, the main text would have been on the 15th Annual W.I.A. Convention which was held at Stratford, N.S.W. Unfortunately, was adequately covered in the last issue.

On 22nd July we held a zone meeting in the 3ASS shack. In attendance were 3AIT, 3ZAT, 3ZOP, 3ZCR, 3ZD, 3AIK and John, swi. from Maffra.

At the 3ADN it was suggested that our zone work on 3500 Kc. be attempted once more. Our first and second trials included the following stations: 3AIT, 3QH, 3AWV, 3ANL and 3ASS. This hook-up has really stirred our boys and any life movement in the boys are just as active as ever. See v.h.f. notes this issue.

Bert 3HB has been operating Morwell High School station 3ANL. It is interesting to see how Amateur Radio is aiding secondary education. Cliff 3AIT was our only contestant in the 3HB zone. He lagged a very good score considering the local conditions at the time. In conclusion, our Morse Code practice was 3ZBR is now 3ZGC, and John 3ZBR has been advised of past, as yet no call sign allotted.

WESTERN ZONE

Some of our members have been busy working on their rigs for the R.D. Contest, and it is hoped that we were well represented this year. Bert 3ZF of Wackabul has completed his new rig consisting of a Gelo driving 80fs. Bert has recently been rock-bound, so the v.f.o. will help quite a lot. Gordon 3U of Rainworth is busy on a converter for his rx and he hoped to work non-stop through the Contest; guess you "hit the wire" on Sunday morning in the Gon. Chas. VRIB, in the Gilbert Islands, often contacts the local boys on the DX bands. Chas. and Audery are enjoying their stay up there but are about to the end of their stay, which will be due early next year. We will be all pleased to see you again Chas.

MOORABBIN AND DISTRICT RADIO CLUB

All members of our Club are grieved at the news of the untimely passing of one of our most popular members. I am referring to the death of Morris 3AMA, whom some of you may not know was responsible in the early days of the Flying Doctor Service for teaching the outback settlers art of operating portable wireless sets. He died during the weekend of July 23 after a long illness, and our sympathy goes out to his loved ones in their sorrow.

Following on the information imparted last month regarding our course of instruction which was held on Wednesday evening, September 7, at p.m., an amendment has been made, namely, both the theory and the practical will be conducted on the one night, i.e. Wednesday of each week. 31CZ telephone number was wrongly given. It is BY 3918.

By the time that these notes come into print our second Crazy Whist night will have been held and it is hoped as the first one, I am sure there will be more.

Our Barbeque will be held at our Club on Friday evening 2nd September. Any visitors would be very welcome.

And now a further plug for our course. If any reader who has not succeeded in obtaining the theory of his A.O.C.P. wishes to avail himself of our offer of tuition, will he write me, 3LC at 1013 High St., Armadale, S.E.3.

GEELONG AMATEUR RADIO CLUB

Most club members now have a very good idea of the advantages to be gained from the opportunity of visiting John 3AIT in Newtown on two occasions recently. John showed how it is to work DX if you go about it in the right manner. The equipment used consists of a Collins 2V-3 tx with a B. & W. 515B-B s.s.b. generator alongside. The rx is a Collins 73A-3 with a home-brew product detector added for better s.s.b. reception. The aerial system, which helps John put such a mighty signal overseas, consists of a three-band wire beam 53 ft. high, complete with propeller motor and selsyn indicator.

S.b.s. stations worked in a very short time last Wednesday night, included ZL1ATG, K5QFW, W3LMA, W0NIA and finally W4RPO. Everyone present was most appreciative of the way John replied to all manner of questions, answered around and around the desk, allowed us to inspect, where possible, the inside of the gear. The latest acquisition to the shack—a Hallicrafters SX96 also created considerable interest.

QUEENSLAND

BRISBANE AND DISTRICT

The July general meeting was quite a show—we had a visit from two of the original Council of the Queensland Division, 3QV and 3WIA. They were Leo Feenaghy, ex-VK4JL, and Bill Wishart, ex-VK4WT; Leo was the original Secretary of the Division and was also the Editor and printer of the first Amateur magazine which had an Australian-wide circulation. This magazine, "QTC", was widely circulated in Australia and was even subscribed to by Hams in over twenty countries throughout the world. The crest which appears on our Divisional Bulletin is a copy of the one which graced the cover of the magazine.

Leo gave a very interesting lecture to a large audience and it was put on tape for broadcast over the air in the morning. Thanks also for the historical record of the W.I.A. which is held by Federal Executive.

It was really interesting to hear about the beginning of our Division from one who was the first Secretary; Leo held this position of Secretary for quite a few years and Bill later became Divisional President. President and Bill swapped jobs. Leo becoming President and Bill Secretary. When they were asked if there was any chance of becoming active again, Leo said he had made up his mind to take up in "personally autographing" the thousands of registration stickers for the automobiles of Queensland (personally, I think he was joking; I'll bet he has a rubber stamp of his signature for doing the job). Anyhow, the job of Main Roads Commissioner must keep him busy. On the other hand, there may be a possibility of hearing Bill on the bands again because there was a nostalgic look in his eyes as he listened to the proceedings.

I suppose you have heard that Stan 4SA, our Secretary, and his XYL, Jess, are going on a tour of the north by car and will be seeing quite a few of the northern boys. He has a brand new 7 Mc. mobile rig, complete with a 7 Mc. mobile rig and if you see a good looking couple at your front gate, you will know who it is.

Well, the belated Palm Beach Convention was held over the last week-end of July and was a great success. There was a wonderful attendance and everyone had good time. Isn't the Queensland winter weather silly? Where we normally have westerly winds and chilly weather around July, we had a week-end with temperatures in the high seventies and no winds. A lot of the boys think a short week-end is a better idea for a Convention and we would like to hear from you. Did any of you blokes with "one-eyed monsters" see the Channel 2 A.B.C. Newsweek recently with the scenes of 2JR, Joe Reed's shack? It was wonderful to see him and should give the general public a better idea of the mysteries of Ham Radio.

SOUTHPORT AMATEUR RADIO CLUB

On Wednesday night, 27th July, the annual general meeting of the Southport Amateur Radio Club took place in the clubrooms, at 8 Bellevue Parade, Heydon, Queensland. The election of office-bearers took place and are as follows: President, Bob Kyle; Vice-President, Ron Ross; Secretary, Bill Sebley; Rumble, Ron Tressurer, Rhys Yarrow; Class Master, Bill Sebley; Librarian, Reg Carter.

The main subjects under discussion were the proposed Amateur Radio Display at the Gold Coast Spring Festival to be held on the Gold Coast during October, and arrangements for the Club's effort in the 1960 Remembrance Day Contest.

The Club has been in action now for 18 months and at the moment has two licensed operators and nearly a dozen members taking the A.O.C.P. course and a transmitter is in construction at the moment. The Club has a 50 ft. aerial, centre fed with co-ax cable and a BC348 receiver.

Members of the Southport Amateur Radio Club at the 1960 Queensland Amateur Radio Convention, held during 30th and 31st July at Palm Beach on the Gold Coast. Lining up home-ner in 1960. M. talks from left, Neil Thomas, Bob Kyle, Bert Bowen (with walkie talkie), Bill Sebley (VK4WS) and Reg Carter. The 144 Mc. talkie was made by Bert Bowen.

TOWNSVILLE

Apologies of my notes in August "A.R." re Arthur 4FE claiming first contact with VK1 post-war, this should have been the first VK to work VK0 as I am advised by VKINE he made first DX contact with MF4BCV at 600 local time on 1/8/60 and he heard no other locals on.

W.I.A. D.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. Cont. No. ries	Call	Cer. Cont. No. ries
VK3RU	23	VK4VW	12
VK6KM	43	VK4HR	12
VK3AB	45	VK3BZ	3
VK4JF	21	VK4RW	23
VK3WV	14	VK3BZ	12
VK3ATN	26	VK3DB	31

C.W.

Call	Cer. Cont. No. ries	Call	Cer. Cont. No. ries
VK3XB	27	VK4HR	12
VK3CX	26	VK3XU	48
VK4JF	29	VK6IU	18
VK3WV	14	VK3BZ	36
VK3NC	19	VK3BZ	2
VK3BZ	6	VK3RX	23

New Members

VK3ARX	66	VK5BS	67
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OPEN

Call	Cer. Cont. No. ries	Call	Cer. Cont. No. ries
VK2ACX	6	VK3NC	77
VK4JF	32	VK3HG	3
VK4JF	32	VK3HG	3
VK6KM	74	VK3XU	61
VK4HR	7	VK6KW	13
VK3BZ	4	VK3BZ	12



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at this time. It was a surprise to read in June "CQ" that Willis Island (VK4) has rigid security regulations and that none of the staff there has Amateur status and will not be allowed to leave the island. I am sure that a yearly change. Looks like we will all have to wait to work that island as a new country. Conditions on the bands seem to be going down as at present a very little heard on the way of DX or local ragchews.

One of the older Hams, feeling browned off, was trying to put his parasitic array of wires in the local club. The local boy who was getting his own array also checked with a distant station and asked for a comparison report, seeing at night that as far apart, and was promptly told off. Never mind, when the newness of his ticket has worn off he will come good and be only too glad, I hope, to speak at the next meeting.

Talking of beams, don't know just what has happened to my beam, seems to work every other place except the locals in Townsville, they never seem to hear me calling them, even when the beam is pointed at their QTH. Maybe in writing the notes, have not given them sufficient write-up, or is it my W.I.A. activities?

Claude 4UX's second class in Ayr is off to the flying start with his aspirations. The way he is going will soon catch up in the local club and will be able to have the balance of power and hold alternate meetings at Ayr. He has been making a few contacts with stations just below the band edge and will not be long before the JA and KH9 are breaking through. Private advice from the speaker of his army tonight arrives in our direction awaiting favourable conditions. The other islands to the north are also hoping to break through and make first contact with Australia.

Visitors to town recently included Z1UR, who hopes to get on the air shortly, and Z1UR, who has been taken to the local club. Roy VK3ND, who promised to call last Friday 3 p.m. and did not arrive, after I had knocked off painting. When he arrived, he was in a hurry to go. Really wanted to entertain you as a small extension of the welcome of my recent visit to VK3 land.

"Candy Pansies are nice flowers, not like the shrinking violet" 73, Bob 4RW.

MARYBOROUGH

The July meeting of the Wide Bay and Burnett Branch was held at Maryborough. Hams 4GH, 4CB, 4AB, 4SW, 4XR, 4LN and 4HZ were present, plus guests and club members. President Gordon gave a talk on Class A Amplifiers.

Bernie 4LN now has a SX101 receiver, and Max 4HD, now at his new QTH, has an English "Rascal". 4SW was appointed Treasurer in place of 4D, who has gone to work. Discussion took place about provision of equipment for checking t.v. Being a remote fringe area, t.v. signals are measured in microvolts and t.v. troubles are accentuated.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division, the Division with the "mostest", was held for the month of July in the new clubrooms. The Chairman, Bob 5W, had a capacity audience of members and visitors. The guest speaker for the night was Mr. E. McGrath (SMO), who is also one of the trustees for the State Electricity Commission. His discussion on the technical side of ABS2, together with some fast work on the blackboard and slides; incidentally, a work of art in themselves.

The audience was given an insight into the layout and techniques that have been employed in the last few years for without more than two hours, and I can honestly say that during this period one could have heard a pin drop, so interesting and informative was the talk. When he finished, Bob 5W gave notice that was given to the guest speaker to prepare his talk, and also the amount of ground covered in the talk. The audience was given the fear of contradiction that it was one of the best nights that the members have had for a long time, and a very satisfactory opening to our new year.

The vote of thanks to the speaker was proposed in a very able manner by Keith 5KH and the enthusiastic response of the members was such that it should, in a small way, compensate Mr. McGrath for the obvious hard work that he had put into preparing the night's entertainment. The speaker, who was heralded and unsung, who assisted the lecturer during the night, we say accept our thanks, and who knows, we might be able to do the same for you one day.

It was fairly late before general business came on, and as at least two-thirds of the audience departed at the end of the talk for their couch of virtue, well, their couch anyway, very little of any importance was discussed, and the Acting Chairman, John 5LC, had a fairly easy time for his first seat in the chair, the usual chairman, Lloyd 5OK, being absent at the time. The result of the recent operation. Among the welcome visitors were Jeff, or is it Geoff, 2AHM, from Wentworth, Brian 5A from the South East, and Rod 2CQ who appeared on the scene in the visitors' book with his left foot. The meeting concluded at a little past eleven p.m. about all the meeting was a very good vote as an auspicious opening for the new clubrooms, and so say all of us.

It may come as a surprise to many to know that the new clubrooms are built in one of my early stamping grounds. I was in my youth a choir boy in St. Paul's Church, and during the meeting I had several nice impressions of my little cherubic countenance fitting around the room. If I had the time, and the Editor could be relied upon to forget his little bit of my youth, I could tell you a few of the little incidents generally associated with those innocent, sweet, pure and so-and-so's, choirboys. I could tell you an example, which proves the rule, and I can also remember the minister saying to me, after having concluded a service, that I was a very good person for my turning the organ motor off in the middle of the anthem, that he had never thought it possible that one choirboy could look like a minister. I was a very good person, yet management to get tangled up in so many sticky situations. Praise has never bothered me, and am still a very good person. But then, I don't need to tell you that, do I?

Luke 5LL heard on the air the other Sunday morning bemoaning the fact that his t.v. set was picking up his contacts on 80 mhz better than his own set. I was a bit of a hero, I presume, but not altogether appreciated by the viewers. At the moment of writing he is about to get set up with a new set. The set was extended tour through the western districts of VK3.

Wally 5DF is now settled in Mt Leigh Creek and has been heard with his usual good signal on 7 Mc. on occasions. Will you miss Port Lincoln Wally? You will miss the water anyway. I was told that the water was coming in a t.v. personality on Channel 7, in the session called "Funtair". Starting off on the radio in the A.B.C., moving over to ADSB in the afternoon, with the usual good signal, has a complete segment with special props, sound effects and all mod. cons. All of which confirms my opinion that the water is what you have what it takes, you can't miss out. At least I will be able to say "I knew him when!"

If ever the call-back session of the Divisional broadcast by SWI on Sunday proved itself, it did on this occasion. The SWI did a lot of for some information on the 108, and ten minutes later Tom 5TL advised it was in the post, to say nothing of Les 5AX coming up and saying that he had some dope on the subject and had also done several conversions of the 108. I never get service like that! When I want anything, I want it now, and I want it in my pockets and start calling DX!

The present stretch of cold weather in VK3 has put a dent in most of the VK3's. As it usually is, I found on 7 Mc. coming in just before the evening meal or just after. However, a couple of hardy regulars were always there, and I was able to get a bit of gossip, etc., and I refer to Carl 5SS and Reg 5MZ. It apparently takes a lot to stop these two from talking over the back fence, and I am sure that they are. The SWI of the last few friendships, made this way, are many, and Frank 5RA would be lost without it. Another member, who has been mentioned, has been missing on occasions, the reason being no doubt a combination of t.v. and the cold, but I heard for a fact that he also missed the t.v. and the cold. I was told that one morning, when he paid his usual visit to Carl 5SS, because he left too early. Carl's XYL was so disappointed that he would not give him any more reminders. I was told that he was full of the goodies. Now see what you have done, Frank!

Perth 5PH heard on 7 Mc. the other evening in QSO with Charlie 2XAL from Broken Hill. Charlie was home from daily toil, apparently recuperating from a recent operation, and but for the fact that he was a bit of a hero, he had sounded for both, the contact would have probably still been going.

Perth 5PH heard on 7 Mc. (SWC) was heard on the SWI call-back session last Sunday with an extra good signal, even for them. Nine times out of ten they are good, but this time they excelled themselves. I understand that

a new burst of enthusiasm is being felt throughout the membership, probably because they are now well and truly settled in their permanent clubrooms now.

George 5GD heard at times on 7 Mc., something of a snob in his attitude, although, I feel, he is truthful, if he does not say which mode of operation he is using, the strength of the signal more often than not is the same. An example of this was when he was on the air, he said to be nibbling at Amateur Radio again, and if this is so, more power to it. He was a good t.v. strength, and I was told that there were few c.w. contacts that he did not finish high up in the winning list. Ray 5BT has been busy of late owing to the indisposition of his wife, and has been out of the last Council meeting. Hope all is well now Ray.

Ken 5IL has been heard mobile in and around Mildura lately, being up that way on holidays. He has the mobile bug badly and his signal certainly tells the story of efficiency much better than the words of mine. Les 5AX, of the little hamlet of Gawler, is another one who is thinking of going in for a little of the strip, and a game of double sidedness. With the failure of 5EF, also in Gawler, it is not altogether unexpected!

The other day, a Radio Amateur friend of mine, who shall remain nameless for obvious reasons, was telling me that he was a snob in his attitude towards Amateur Radio and the general public, because only Kings, Dukes, and Maharajahs were ever mentioned in the W.I.A. column which appears weekly in the local paper, the Adelaide "Advertiser". I was told that he was a snob, and I was told as to the reason for this unintentional attitude of snobbery, it occurred to me that possibly a number of the readers of the column might have the same view, or their benefit and also for the benefit of any others who might have the wrong idea, the reason for the snobbery is the fact that the public in the public into the idea that not all Radio Amateurs are typical of 40 mhz, which, after all, is the general public's only personal contact with the Radio Amateur. The Radio Amateur band on the b.c. arc. A few minutes' listening into the run-of-the-mill 40 mhz working, without the usual good signal, and the mind of the uninformed listener, an impression of Amateur Radio that is difficult to remove, and that is putting it mildly. Bearing in mind the fact that the Radio Amateur is under instructions from Council, for the sole purpose of drumming into the minds of the public that the Radio Amateur is a snob, and that of Amateur Radio was not confined to a particular class of humanity, but was the hobby of the top strata right through to the bottom, like Mr. Bearing all in mind, the next time that you read that Maharajah So-and-So, or Admiral Such-and-Such has just constructed a crystal set, or a radio, or a transmitter, and remember that Mr. and Mrs. G.P. with constant repetition, will remember the Maharajah or Admiral angle much longer than 40 mhz. I believe me brethren, in the line of snobs in the back, and sundry expressions of goodwill toward Amateur Radio, we need general public to be more and more over.

When 5AF from Port Augusta was heard on 7 Mc. the other day, and with this in view I feel that I can safely say that he is now active on the air. Reg 5RR was seen at the time, and I was told that he had discarded one of his double sidebands and is now single. I have heard him once or twice on the air, and I was told that he was double or single. Tom 5AQ is nibbling at single sideband but his mobile gear is claiming his full attention at the moment; working f.b. he has been heard on the air, and I was told that he was one of the schoolboys going out did say, "What a beaut. T.v. aerial!"

Les 5UX, better known as "Uncle Xray", has been heard on the air, and I was told that he was a snob in his attitude towards Amateur Radio and the general public, because only Kings, Dukes, and Maharajahs were ever mentioned in the W.I.A. column which appears weekly in the local paper, the Adelaide "Advertiser". I was told that he was a snob, and I was told as to the reason for this unintentional attitude of snobbery, it occurred to me that possibly a number of the readers of the column might have the same view, or their benefit and also for the benefit of any others who might have the wrong idea, the reason for the snobbery is the fact that the public in the public into the idea that not all Radio Amateurs are typical of 40 mhz, which, after all, is the general public's only personal contact with the Radio Amateur. The Radio Amateur band on the b.c. arc. A few minutes' listening into the run-of-the-mill 40 mhz working, without the usual good signal, and the mind of the uninformed listener, an impression of Amateur Radio that is difficult to remove, and that is putting it mildly. Bearing in mind the fact that the Radio Amateur is under instructions from Council, for the sole purpose of drumming into the minds of the public that the Radio Amateur is a snob, and that of Amateur Radio was not confined to a particular class of humanity, but was the hobby of the top strata right through to the bottom, like Mr. Bearing all in mind, the next time that you read that Maharajah So-and-So, or Admiral Such-and-Such has just constructed a crystal set, or a radio, or a transmitter, and remember that Mr. and Mrs. G.P. with constant repetition, will remember the Maharajah or Admiral angle much longer than 40 mhz. I believe me brethren, in the line of snobs in the back, and sundry expressions of goodwill toward Amateur Radio, we need general public to be more and more over.

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and hearty because I have bumped into him a couple of times at the gee-gee's, in the course of the day. I don't know if he wouldn't know which they feed a racehorse.

Frank SMZ hits the headlines this month with the news of the exploding of an acetylene torch that he was using. His arms and face were burnt, he had to take time off from work, and this episode closed his career. The injury to his toe, it would seem that his stars are not in the right orbit or something. There is not a vestige of truth in the rumour that he was going to guess the last wait out of the torch when it blew up! What is the equivalent for wait in acetylene gas? the footlumen?

Les ZCZI is reported to be exhibiting an unwelcome interest in the activities of Moonwatch. Les, do you want to grow up like Gordon DXU and that joker Hugo VYR? Let that be a warning to you, it could happen to you!

It was with regret and sadness that we read in the daily paper this month of the sudden passing of the XYL of Joe SJO. Well known for his activities in recent years on the social scene, the late Joe SJO was a man of many annual perics, she had a heart of gold, even bigger than Joe's, and her passing will be regretted by all who knew and loved her. Considered at such a time as this mean nothing, and we can only say "Keep your chin up, Joe."

Pete SJC at the moment of writing is holidaying somewhere in the wilds of VK2, and has been heard mobile from various places. When I heard the signals, peering through the dark, I thought he must be hearing things, but then I heard him being called and realised that he was real, although in VK2. Charlie TBYN attacked the air again after a short holiday from all bands. For mine, when I told me that he had given the game away, I didn't believe it, and apparently I was right.

Despite the wintry weather there was a good roll-up at the monthly meeting of the South-Western Amateur Radio Club. A goodly number all the way from Lantana, and a good time was had by all. Tunko 5LL passed through the Mount on the way home from the Eastern States, and Pete SJC passed through on the way to VK3 and VK2. Stuart SMS is awaiting some dry weather to paint some new poles. The antenna will spread over a couple of acres, and only goes to prove that he is on good terms with his neighbours. Claude 5CH has been heard on 7 Mc. a few times, but has not been busy as usual. He and Luke and Pete whilst they were in the Mount.

Tom 5TW has had a fairly quiet month and is limbering up for the R.D. Contest. Noticed another couple of months ago, and on the other day, receiving his certificate for twenty-five years in the broadcasting industry; nice work, Tom. Erg 5KU has been carrying out the annual maintenance to the beam, drive motor and indicators, plus a little judicious oiling of the dot-dash key! Leo 5GJ has been heard frequently on 30 mc, which could be taken as a good indication of activity to come. Dave 5AW has been sending 288 Mc. signals down to the Mount from Penola, and with the completion of daily reception of signals, Col 5CJ, it would appear that this path is always open.

Col 5CJ, as aforementioned, is mixing v.h.f. and h.f. working at the drop of a hat. He has been returning the compliment by sending 144 Mc. signals back to Dave at Penola each day. Col 5CJ has been in a new class. He has built a Monimatch, Mark II, and can really recommend it. Pastor Ron Holmes has almost reached the stage of a new church call sign, but is finding that his new church is taking a large slice of his time, and of course, "First things must come first." Dave Wood 5CJ has been in a new class. He has applied for membership in the VK3 Division, and we hope the next move will be for a call sign.

Things fairly quiet around Elizabeth this month, which is all to the good for me as snow flowed in from all directions this month, and the Editor, my shadow never grows, and is cutting my eye at the Editor, and pencil, but I must mention the Elizabeth Award, which is available to all Radio Amateurs with a good production of a new or necessary QSL card, of six contacts with Amateurs resident in Elizabeth, and for those in Australia, six contacts with Amateurs in Elizabeth. V.h.f. or a contact with a member of the Elizabeth Radio Club will count as two toward the certificate. DX contacts as well as local applications for two or three local QSLs. I don't bother to send QSL cards, just send details of contacts which can be checked with logs. If any further particulars are wanted, contact Ron 5PY or Ruby 5NO.

WESTERN AUSTRALIA

Congratulations go out to 6RX and 6YL on the arrival of their baby daughter and we hope she has a long and happy life, also we hope to see 6YL on the air very soon, and tell us all what the new harmonic looks like.

A number of new members were accepted into the Institute at the monthly general meeting of which one new member was 6KS, ex-250, who was very good at the meeting and received a welcome from all present.

6KW reported that the Government is forming a committee to look into the findings of the I.U. and to see how they affect the frequency allocations.

It was decided, after a short debate, that a committee be formed by the S.W. Group of its members in the Institute to draw up a plan of activities and report to the Institute, the members elected to form the committee were Mr. and Mrs. Hardwick and Mr. Price. After the election of this committee, Mr. Hardwick, who has been, I think I can say, the most active a.w.l. in VK6 for many years, gave us a talk on the past activities of the S.W. Group. I think I can speak for everybody present and say that it was very interesting and very useful. We are all to have a Group within us now devoting themselves to the building of new Amateurs through a.w.l. interests. Keep up the good work, Eric and Rose, and the other chap in our minds when we are talking to him. Don't forget "Amateur Radio." Please contribute to the VK6 notes to make this column more interesting.

It was very nice to see Francis 6WD also at the meeting and there should be more country members present at these meetings during the year as I know we will like to have a picture of the other chap in our minds when we are talking to him.

I think, chaps, that this will be the last reminder for anybody who has not yet submitted their logs for the R.D. Contest to do so right away to Jim 6RU, the deadline is Friday, 22 September, and we have great hopes of regaining the trophy from VK7.

The newly formed Western Australian branch of the Telecommunications Society is looking for members, what about it, fellows. This Society is formed from 4th August at the States for some time, its aim is the diffusion of the knowledge of Telecommunications, Broadcasting, and T.V. services in Australia and these will be provided by lectures, discussions and visits to places of interest and also by the medium of the Society's journal, "The Australian Telecommunications Foundation." The annual fee of which is 10/- and the membership is 2/- per annum. The meetings and lectures are to take place every second month commencing from 4th August at the Technician Training School, Cr. Lord and Perry Streets, East Perth. The date and time of the October meeting will be decided at a later date and the lecture for that meeting will be "Communications throughout the Department of Civil Aviation" by the representatives of that administration.

Well chaps, 73 for now and here is hoping we have the R.D. Contest in the bag.

TASMANIA

My personal thanks go out to Joe TBJ and Ken 7KA and young Norman Millin for erecting my new half wave 80 mc antenna on 40 ft. poles. My new antenna coupler, of the type described in "QST," is working fine, also in operation early in August. Thanks, chaps, for a good job very well done. Bob TOM and his XYL spent August at the local Y.M.C.A. and we hope that you both benefited from it. Pat TGV has been heard on 7 Mc. for the first time. We hope to hear a lot more of you, and we hope that you both benefited from it. We hope to hear a lot more of you, and we hope that you both benefited from it. We hope to hear a lot more of you, and we hope that you both benefited from it.

Charlie 7KS has been conducting the Sunday morning radio broadcasts during the month of July in the absence of Jack TJB who had planned to re-build his tx during that time with a good deal of help from the Editor, but however, was not fulfilled to the extent that he has not yet re-built, due largely to the fact that he has been viewing the one-eyed moon with great pleasure. Charlie has been building a hi-fi set using EL84s, and we hope you are satisfied with its performance. Ken 7KA is very pleased to have completed the dig-out of his workshop under his house. He hopes now to be able to get on to the problem of remedying the loss of his 40 ft. pole. He has also been almost finished the re-building of his tx, intending mainly to confine it in a smaller space. His next task is to erect a suitable antenna system.

Conditions on the DX bands during July have been about as bad as I have ever experienced. The 80 band has been the only redeeming feature, and it has been very pleasant to find so many chaps appreciating the virtues of the 80 band. There were at least four VK7 stations swapping numbers with the 22Ls during their Memorial Day Contest in mid July. VKs 7SM, TWA and 7AG joined in the redoubtable 22L contest.

Our August meeting was privileged to visit VIH for an inspection of the equipment up there. There were many bits and pieces up there, and there were 18 members present. Hobart, but Bill TTYV kept an eagle-eye on the assembled company and their pockets. Thank Bill for a pleasant evening.

NORTH WESTERN ZONE

Another business year has passed and our Annual Meeting was held on August 2 at the usual QTH. There were 18 members present and everything went with a swing. Minutes of appropriate meetings were read and Frank TTH gave his report of progress and occurrence during the year.

Election of officers produced some changes with Max TMY as our new President and David TMS as Secretary. Allan Baptiste still carries on as Treasurer and the new V.h.f. Officer, Ellis TWA will still be handling the QSL business and your truly TTH will still be endeavouring with your help, I hope, to find something to write about.

Progress is at last being steadily made with the construction of the radio gear for the Burnie Fire Brigade. The mobile units are gradually being completed and the construction of the Base Station is well under way.

Supper was disposed of as usual, so also was a goodly collection of surplus junk and some funds benefited satisfactorily.

The R.D. Contest is over for yet another year and I sincerely hope all VK7s not only participated but duly forwarded their logs to Headquarters.

David TMS built a "bird cage" for 20 mx and a very nice one at that. It is 10 ft. high, 10 ft. wide, and 10 ft. deep. It is made of 1/2" steel pipe and 1/2" steel plate. It is a very nice one. Bad luck David it looked much like one of those weeping roses the day I saw it. I believe David was at the top of the mast, but when he said cage decided to change its position.

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